



THERMAL INSULATION ACCESSORY MATERIALS

CAPRICORN COATINGS & COLOURS



## LB-39

# FIRE RESISTIVE VAPOUR BARRIER MASTIC

### DESCRIPTION

LB-39 is a high solid water based fire resistive, flexible vapour barrier mastic suitable for application over most type of thermal insulation materials including polystyrene foam. It can also be used over concrete and metals.

LB-39 is suitable for use on pipes, ducts and equipment operating below ambient temperature.

LB-39 does not contain asbestos, lead, mercury and mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
White / Grey

**Viscosity: CSTM 02**  
Thick paste

**Specific gravity: ASTM D 1475**  
1.3 to 1.35

**Average non-volatile :ASTM D 1644**  
Approx 70% by weight

**Service temp limits at coated surface:**  
-30°C to 80° C CSTM 03

**Water vapour permeance: ASTM E96**  
0.02 perm at 1.3 mm dry film Thickness

#### RESISTANCE TO

<b>Weathering:</b>	Excellent
<b>Mineral oil:</b>	Good
<b>Solvent:</b>	Good
<b>Saline solutions:</b>	Excellent

**Diluted bases/Acid:** Good

### APPLICATION

**Equipment:**  
Trowel, spatula, brush, airless spray

**Coverage: CSTM 04**  
2.5kg/m<sup>2</sup> at 2 mm thickness

**Drying time: ASTM D 1640**  
Superficially: 3 hour  
Dry hard: 24 hours

**Clean up solvent:**  
water, for dry material use chlorinated solvents (non-flammable)

### HANDELLING AND STORAGE

**Flammability: ASTM D 3278**

Wet: Flash point none to boiling, 100°C Dry: Fire resistive- self extinguishing (application of flame for 1hour )

Store and apply between 4°C to 40°C, protect from freezing until dry. To protect form rain wash-off allows at least 12 hrs drying above 15°C. Higher humidity and lower temperature may retard drying.

### IMPORTANT

Do not thin. Allow adequate ventilation. The mastic thickness if exposed to cold weather. Before use it should be sorted in a warm place. When sorted in a cool dry place usable life is one year.

**Note:** The parameters and properties of LB39 closely resembles to fos\*\*r vapour safe mastic 30-90.



## LB-60

# FIRE RESISTIVE MASTIC

### DESCRIPTION

A tough, fire resistive, water vapour barrier, weather proof mastic designed to protect insulation system applied to equipment operating below ambient temperature.

LB-60 can be used on high density wool and fibrous glass, cork, polyurethane but cannot be used on polystyrene foam.

LB 60 does not contain asbestos, lead, mercury and mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
White/grey

**Viscosity: CSTM 02**  
Soft paste

**Specific gravity: ASTM D 1475**  
1.25

**Average non-volatile: ASTM D 1644**  
60% by weight

**Service temp limits at coated surface:**  
-40°C to 90°C CSTM 03

**Water vapour permeance: ASTM E 96**  
0.06 perm at 1.2 mm dry film thickness.

#### RESISTIVE TO

**Weathering:** Excellent  
**Mineral oil:** Resist splashes  
**Solvents:** Resist splashes  
**Saline solutions:** Excellent  
**Diluted bases/ acid:** Excellent

### APPLICATION

#### Equipment:

Trowel, spatula, brush, airless spray

#### Coverage: CSTM 04

Initial coat: 1.0 sq m per kg 1 mm wet film thickness

Finish coat: 0.5 sq m per kg 2 mm wet film thickness.

#### Drying time: ASTM D 1640

Superficially: 4 hours

Dry hard: 48 hours

**Clean up solvent:** Xylene (flammable), chlorinated solvents (non flammable)

### HANDELLING AND STORAGE

#### Flammability: ASTM D 3278

Wet: flash point 41°C

Dry: fire resistive- self extinguishing  
(Application of flame for 15 minutes.)

Store between 4°C to 35°C

### IMPORTANT

Contains volatile flammable solvent. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

**NOTE:** The properties and parameter closely resembles to Fos\*\*r 65-05/65-06

## LB-100

### DESCRIPTION:

A durable, tough, vapour barrier bituminous mastic suitable for application for low temperature thermal insulation. It provides protection of thermal insulation against weathering and is also a good protective coating for metal.

LB-100 can be used on high density mineral wool, fibrous glass, polyurethane, cork but it should not be used over polystyrene foam above 40°C.

LB-100 can also be used on heated lines, vessels and equipment in intermittent or dual temperature service to prevent ingress of moisture into the insulation.

### TECHNICAL DATA:

#### GENERAL

**Colour: CSTM 01**

Black

**Viscosity: CSTM 02**

Soft paste

**Specific gravity: ASTM D 1475**

1.2

**Average non-volatile: ASTM D 1644**

75% by weight

**Water vapour permeance :ASTM E 96**

0.1 perms at 3mm dry film thickness ASTM E-96

**Service temperature limits: CSTM 03**

- 35°C to 80°C

### APPLICATION

Surface must be dry, clean and free of grease

#### Equipment:

Trowel, spatula & rubber gloves.

**Coverage: CSTM 04**

Initial coat: 0.7 sq mtrs. per kg 1.5mm Thickness

**Drying time: ASTM D 1640**

Superficially: 6 hours

Dry hard: 48 hours

#### Clean up solvent :

White Spirit (flammable) or chlorinated solvents (non-flammable)

### HANDLING & STORAGE

**Flammability: ASTM D 3278**

Wet-Flash point 40°C

Dry-slow burning

Do not thin. Contains volatile flammable solvents. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place, useable life is one year.

**NOTE:** The properties and parameter closely resembles to Fos\*\*r 60-25/60-26

## **LB - 129**

### **Asphalt Base Vapour Barrier Mastics**

#### **DESCRIPTION:**

**LB - 129** is Asphalt base vapour barrier mastics made from selected grades of bitumen with fibrous fillers. **LB - 129** set maximum 24 hours and remain plastic on insulation material and take care of vibrations generated from pipes & equipment's. **LB -129** is durable protective weather coat for use over thermal insulation where an economical breathing mastic is required.

The dried films of **LB -129** have improved rheological properties. **LB - 129** are tough non-flowing, resilient and strongly adhere to almost all types of surface. It will not shrink or crack during curing.

**LB -129** does not contain lead, mercury and mercury compounds.

#### **CHARACTERISTICS:**

**Colour : CSTM 01**

Brown to Chocolate

**Consistency :**

Brushable/Trowel able

**Drying Time: ASTM D 1640**

(Touch) 8 Hrs. Max.

(Through) 24 Hrs. Max.

**Coverage: CSTM 04**

12.5 kg / Sq. M for 3.2 mm thickness on non - Porous insulation material

**Vapour Barrier Permanence: ASTM E 96**

1 perms @3.2 mm dry film thickness.

**Specific Gravity: ASTM D 1475**

1.15

**Service Temperature: CSTM 03**

(-)30°C to 120°C

**Flammability: ASTM D 3278**

**Wet:** More than 100°C

**Dry:** Burns Slowly

#### **APPLICATION:**

**LB -129** is recommended for protecting various types of thermal insulations to maintain their thermal efficiency.

It is recommended that initial coat should be of 3.5 mm embed with woven glass cloth with a second coat of another 3.2 mm.

#### **Advantages:**

- Good vapour barriers.
- Retains thermal efficiency during all weather conditions.
- Economical and effective insulation material.
- Solvent Free and hence eco-friendly and non toxic



## LB-130

# FIRE RESISTIVE ALUMINIUM MASTIC

### DESCRIPTION

A tough, fire resistive, light reflective, water vapor barrier, weather proof mastic designed to protect insulation system applied to equipment operating below ambient temperature. LB-130 can be used on high density wool and fibrous glass, cork, polyurethane but cannot be used on polystyrene foam.

LB130 can also be used over insulation materials, on heated pipe lines, vessels. It contains no asbestos, mercury & lead compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
Aluminum / Dark Brown

**Viscosity: CSTM 02**  
Soft paste

**Specific gravity: ASTM D 1475**  
1.3 ± 0.05 kg/l

**Average non-volatile: ASTM D 1644**  
65% by weight

**Service temp limits at coated surface:**  
-40°C to 95°C **CSTM 03**

**Water vapour permeance: ASTM E 96**  
0.02 perms at 2 mm dry film thickness

#### RESISTANCE TO

**Weathering:** Excellent  
**Mineral oil:** Resist splashes  
**Solvents:** Resist splashes  
**Saline solutions:** Excellent  
**Diluted bases/ acid:** Excellent

### SURFACE BURNING

#### CHARACTERISTICS (ASTM E 84 15a) – dry material

Flame Spread: 0  
Smoke Developed: 45

### APPLICATION

**Equipment:**  
Trowel, spatula

#### Coverage: CSTM 04

Initial coat: 0.8 sq m per kg 1 mm wet Film thickness.

Finish coat: 0.5 sq m per kg 2 mm wet Film thickness.

For extra reinforcement, no.10 weave glass cloth should be used between initial and final coat.

#### Drying time: ASTM D 1640

Superficially: 2 hours  
Dry hard: 2 days

**Clean up solvents:** Xylene (flammable), chlorinated solvents (non-flammable)

### HANDELLING AND STORAGE

#### Flammability ASTM D 3278

Wet: flash point 41°C

Dry: fire resistive-self extinguishing  
(application of flame for 15 minutes)

Store between 4°C to 35°C.

### IMPORTANT

Contains volatile flammable solvent. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

#### NOTE:

The properties and parameter closely resembles to Fos\*\*r 60-35/60-30.



## LB- 131

# FIRE RESISTIVE ALUMINIUM MASTIC

### DESCRIPTION

LB 131 is a fire resistive vapour barrier mastic for protection of all types of insulation except polystyrene foam. It has exceptional durability and flexibility at high and low temperature and is formulated with blend of nonflammable solvents which makes it fire safe during application.

LB - 131 does not contain asbestos, lead, mercury and mercury compounds

### TECHNICAL DATA

#### GENERAL

**Colour: CSTM 01**  
Aluminium

**Viscosity: CSTM 02**  
Soft paste

**Specific gravity: ASTM D 1475**  
1.45 to 1.50

**Average non-volatile: ASTM D 1644**  
50% by weight

**Service temperature limits at coated surface: CSTM 03**  
(-) 35°C to 80°C

**Water vapor Transmission: ASTM E 96**  
0.02 perm to 3 mm Wet film thicknesses

#### RESISTANCE

**Mineral oil:** Resists splashes  
**Solvent:** Resist splashes  
**Saline solution:** Excellent  
**Diluted bases/acids:** Excellent

### APPLICATION

**Equipment:**  
Trowel, brush

#### Coverage: CSTM 04

Initial coat: 0.7 sq mtr. per liter 1.5mm wet film.  
Finish coat: 0.35 sq mtr. per liter 3mm wet film thickness.

#### Drying time: ASTM D 1640

Touch: 0.5 hours  
Through: 48 hours

**Solvent clean up:** Xylene  
(flammable), chlorinated solvents (non-flammable)

### HANDLING & STORAGE

#### Flammability: ASTM D 3278

Wet: non-flammable  
Dry: fire resistive-self extinguishing (application of flame for 15 minutes)

Use with ventilation in confined space. For extra reinforcement, no. 10 weave glass cloth should be used between initial and final coat.

### METAL CLADDING

Under metal cladding coverage should be as stated below.

#### Tack coat:

0.1 sq mtr. per litre 1.02 mm wet film thickness

**Finish coat:** 0.4 sq. mtr. per litre 2.38mm wet film thickness.

### IMPORTANT

Contains volatile flammable solvent. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

## LB-135 FIRE RESISTIVE MASTIC

### DESCRIPTION

A tough, fire resistive, water vapor barrier, weather proof mastic designed to protect insulation system applied to equipment operating below ambient temperature. LB-135 can be used on high density wool and fibrous glass, cork, polyurethane but cannot be used on polystyrene foam.

LB 135 is chlorosulphnated polyethylene rubber based mastic for low temperature insulation on vessels, pipe work and duct work.

LB-135 can also be used over insulation materials, on heated pipe lines, vessels. It contains no asbestos, mercury & lead compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**

White / Grey

**Viscosity: CSTM 02**

Thixotropic Thin Paste

**Specific gravity: ASTM D 1475**

1.25 ± 0.05

**Average non-volatile: ASTM D 1644**

60% ± 2 by weight

40% ± 2 by volume

**Service temp limits at coated surface:**

- 45°C to 120°C CSTM 03

**Water vapour permeance: ASTM E 96**

0.020 perms max. at 1.2 mm dry film thickness as per ASTM E-96 procedure E

#### RESISTANCE TO

**Weathering:** Excellent

**Mineral oil:** Resist splashes

**Solvents:** Resist splashes

**Saline solutions:** Excellent

**Diluted bases/ acid:** Excellent

### APPLICATION

#### Equipment:

Trowel, spatula, rubber glove

#### Coverage: CSTM 04

Apply a tack coat of LB – 135 at a Thickness of 0.8 mm (0.8 m<sup>2</sup> per kg) while tack coat is still wet a layer of reinforcing membrane shall be embedded keeping overlap of 5 cms at seams. Apply a finish coat of LB-135 at a minimum thickness of 1.2mm.

#### Drying time: ASTM D 1640

Superficially: 3 hours

Dry hard: 2 days

#### Clean up solvent:

Xylene (flammable) / Chlorinated solvents (non-flammable)

### HANDLING AND STORAGE

#### Flammability: ASTM D 3278

Wet: flash point ≥43°C

Dry: fire resistive – self extinguishing (application of flame for 15 minutes)

Store between 4°C to 40°C

#### SURFACE BURNING (FSI)

#### CHARACTERISTICS (ASTM E 84-17) – dry material

Flame Spread: 0

Smoke Developed: 15

### IMPORTANT

Contains volatile flammable solvents. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

**Note:** The parameters and properties of LB 135 closely resembles to fos\*\*r 60-90/60-91. The properties may change depending on specific requirement.

## **LB-136**

# **FIRE RESISTIVE CSP BASED VAPOUR BARRIER MASTIC**

### **DESCRIPTION**

LB-136 is a tough, flexible elastomeric mastic based on chlorosulphonated rubber for protection of thermal insulation and also used as a vapour barrier finish for fittings.

LB-136 provides outstanding weather resistance for rigid insulation materials excepting polystyrene. It has good adhesion with aluminum foil.

LB-136 does not contain asbestos, lead, mercury or mercury compounds.

### **TECHNICAL DATA**

#### **GENERAL PROPERTIES**

**Colour: CSTM 01**

White / Grey

**Viscosity: CSTM 02**

Soft paste

**Specific gravity: ASTM D 1475**

1.25±0.05 kg/ltr.

**Average non-volatile: ASTM D 1644**

44% ±2% by weight

**Service temp limits at coated surface:-**

-40°C to 120° CSTM 03

**Water vapour permeance: ASTM E 96**

0.02 perms max. at 1 mm dry film thickness

#### **RESISTANCE TO**

<b>Weathering:</b>	Excellent
<b>Mineral oil:</b>	Excellent
<b>Solvents:</b>	Resist splashes
<b>Saline solutions:</b>	Excellent
<b>Diluted bases/ acid:</b>	Excellent

### **APPLICATION**

**Equipment:**

Trowel, spatula

**Coverage Wet: CSTM 04**

2.6 kg/m<sup>2</sup> at 2 mm wet film thickness.

**Drying time: ASTM D 1640**

Superficially: 2 hours max.

Dry hard: 24 hours max.

**Clean up solvent:**

Xylene (flammable), chlorinated solvents (non-flammable)

### **HANDELLING AND STORAGE**

**Flammability: ASTM D 3278**

Wet: Flash point 43°C

Dry: Fire resistive-self extinguishing

(application of flame for 15 minutes)

Store between 4°C to 40°C

**SURFACE BURNING (FSI)**

**CHARACTERISTICS (ASTM E 84 15a) –  
dry material**

Flame Spread: 10

Smoke Developed: 45

### **IMPORTANT**

Contains volatile flammable solvent. Allow adequate ventilation. Keep away from heat and open flame. The mastic thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

**Note:** The parameters and properties of LB 136 closely resembles to fos\*\*r monolar mastic 60-38/60-39. The properties may change depending on specific requirement.



## CC 404

### DESCRIPTION

CC-404 coating is a highly flexible, acrylic latex coating used with FOAMGLAS insulation where a superior weather barrier coating is required.

CC-404 coating is available in colors and may be applied by glove, trowel, brush, or spray.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
White

**Specific gravity: ASTM D 1475**  
1.3 to 1.4 (Kg/L)

**Average non-volatile: ASTM D 1644**  
66% - 67%

**Service temp limits at coated surface:**  
- 30°C to 180 CSTM 03

**Water vapour permeance: ASTM E 96**  
More than 1 perms @ 1.4 mm dry film thickness

**Elongation %:**  
≥ 200

**Coverage Wet: CSTM 04**  
2 to 2.5 Kg/m<sup>2</sup>

**Drying time: ASTM D 1640**  
Touch 3 hours  
Through 24 hours

**Solvents:**  
Water

### SURFACE PREPARATION:

The FOAMGLAS insulation surface should be dry, free of frost, oil and grease. Insulation should be fitted so the joints are tight and without broken or rounded corners.

Any surface variation between blocks should be eliminated by rubbing the insulation smooth. Excess sealant or adhesive should be removed from the insulation surface. Inside corners should be canted and outside corners rounded.

Blasting of all adjacent surfaces should be completed and metal primed before insulation is coated.

### APPLICATION

#### Equipment:

Trowel, Glove, Brush or Spray

On interior building insulation, reinforcing may be eliminated in some cases.

Spray application recommendation are a 30:1 ratio or larger pump with a 1/2" to 3/4" diameter high pressure hose. The orifice of the spray tip should be 0.035" to 0.045". A reversible tip is recommended. Use a squeegee to press coating into surface.

#### Clean up:

Clean equipment and spills with water before coating dries.

#### Flammability ASTM D 3278

Wet: Flash point: Non-Flammable

### LIMITATIONS:

Protect from FREEZING. Store and Ship above 32°F (0°C). Do not use where water will pond.

Do not apply if rain or temperatures below 40°F (4°C) are expected before coating dries.

**Note:** The parameters and properties of CC 404 closely resembles to Pittsburgh Corning Pittcote 404. The properties may change depending on specific requirement.



## CC 9 WEATHER BARRIER MASTIC

### DESCRIPTION:

CC 9 is Specialty Polymer Based Weather Resistant Mastic for Heavy Duty Protection of Thermal Insulation.

It is used as weather proofing and heavy duty protective coat on thermal insulation in hot, cold and dual temperature service where the insulation and/or the insulation system forms an adequate vapour barrier prior / after to the application of the CC 9.

### TECHNICAL DATA

#### GENERAL PROPERTIES:

**Colour: CSTM 01**  
Brownish Black

**Viscosity: CSTM 02**  
Soft Paste

**Density: IS 101**  
≥1.1 Kg. / Ltr.

**Average Non Volatile: IS 101**  
≥ 64% by weight

**Service Temperature Limits at Coated surface:**  
-40°C to 85°C(CSTM 03)

**Water Vapour Permeance:**  
≥1 perm at 1.6 mm dry film thickness.

### APPLICATION:

**Equipment:**  
Trowel, Glove

**Coverage:**  
0.50 m<sup>2</sup>/kg. @ 1.5 mm wet film thickness

#### Drying time.

Touch: 4 hours  
Through: 36 hours  
Clean up: Warm soapy water, Aromatic Solvent

### SURFACE BURNING CHARACTERISTICS (ASTM E 84 20) – dry material

Flame Spread: 5  
Smoke Developed: 135

### HANDLING & STORAGE:

#### Flammability

**Flash Point:** Non Flammable

**Wet:** Non flammable

**Dry:** fire resistive self extinguishing (application of flame for 15 minutes).

### IMPORTANT:

The surface to be treated should be thoroughly cleaned to remove loose dust, foreign particles, oil and other contaminants.

Before applying CC 9, the insulation should have vapour barrier property.

To obtain proper bonding, dusty & cementitious surfaces should be primed with CC 9 mixed with Water Maximum in 1:1 Ratio (based on required consistency).

CC 9 shall be applied over insulation in two trowel applications. First application shall be applied @ 1.0 m<sup>2</sup>/Kg. While first coat is still wet, a layer of Reinforcing Mesh shall be embedded maintaining overlap of 5cm at seams

### NOTE:

The properties and parameters closely resembles to Tiki CP-9. The properties may change depending on specific requirement.



## VINALOID

### DESCRIPTION:

An emulsion type polymeric protective coating in a range of colours for thermal insulation in heated piping vessels and other process equipments. These products provide a tough, fire resistive, abrasion resistant coating. Vinaloid mastics can be used on mineral wool, foam glass, cork, polystyrene and polyurethane. Designed for application with No. 10 open weave glass cloth.

Vinaloid mastic does not contain asbestos, lead & mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES:

**Colour :** LB 201: Off White (CSTM 01)  
LB 202: Aluminium Grey  
LB 203: Black  
LB 204: Grey  
LB 205: Green  
LB 206: Blue

**Viscosity: CSTM 02**  
Soft Paste

**Specific Gravity: ASTM D 1475**  
1.35

**Average Non Volatile: ASTM D 1644**  
65% by weight

**Service Temperature Limits at Coated surface:**  
-40°C to 125°C CSTM 03

**Water Vapor Transmission: ASTM E 96**  
>1.0 perms at 1.5 mm dry film thickness.

#### RESISTANCE TO:

<b>Weathering:</b>	Excellent
<b>Solvents:</b>	Good
<b>Water:</b>	Excellent
<b>Dilute acid/alkalis:</b>	Good

### SURFACE BURNING

#### CHARACTERISTICS (ASTM E 84 15a) – dry material

Flame Spread:	10
Smoke Developed:	50

#### APPLICATION:

##### Equipment:

Trowel, Spatula, gloves

##### Coverage: CSTM 04

Initial coat: 1sq. meter/1.3 liter 1.0 mm wet film thickness

**Finish coat:** 0.6 sq. meter per liter 1.5 mm wetfilm thickness

##### Drying time: ASTM D 1640

Touch: 3 hours

Through: maximum 48 hours

Clean up Solvent: Water

#### HANDLING & STORAGE:

**Flammability: ASTM D 3278**

**Flash Point:** none to boiling, 100°C

**Wet:** Nonflammable

**Dry:** fire resistive

#### IMPORTANT:

Should be protected from freezing. It is not advisable to apply below 5°C. Clean Tools and equipments immediately after use with soap water. To protect from rain wash off allow least 12 hrs drying above 15°C. Do not thin. Allow adequate ventilation. The mastic thickness it exposed to cold weather. Before use it should be stored in a warm place. When stored in a cool dry place usable life is one year.

**NOTE:** The properties and parameter closely resembles to Childers CP-9 & Fos\*\*rs 35-00/ 45-00.



## LB-65

# FIRE RESISTIVE COATING

### DESCRIPTION

A tough, fire resistive, water vapor barrier, weather proof coating designed to protect insulation system applied to equipment operating below ambient temperature. LB-65 can be used on sprayed polyurethane foam but cannot be used on polystyrene foam.

LB 65 is a chlorosulphnoated polyethylene rubber based coating for low temperature insulation on vessels, pipe work and duct work.

LB-65 can also be used over insulation materials, on heated pipe lines, vessels. It contains no asbestos, mercury & lead compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**

White / Grey

**Viscosity: CSTM 02**

Soft paste

**Specific gravity: ASTM D 1475**

1.15 to 1.20

**Solids by weight:**

47%

**Service temp limits at coated surface:**

-45°C to 105°C CSTM 03

**Water vapour permeance: ASTM E 96**

0.025 perms at 1.3 mm dry film thickness

### RESISTANCE TO

**Weathering:** Excellent

**Mineral oil:** Resist splashes  
**Solvents:** Resist splashes  
**Saline solutions:** Excellent  
**Diluted bases/ acid:** Excellent

### APPLICATION

#### Equipment:

Trowel, spatula

#### Coverage: CSTM 04

2.4 kg/m<sup>2</sup> at 2.3 mm wet film thickness.

#### Drying time: ASTM D 1640

Superficially: 3 hours

Dry hard: 24 hours

**Clean up solvent:** Xylene (flammable)

Chlorinated solvents (Non flammable)

### HANDELLING AND STORAGE

**Flammability: ASTM D 3278**

Wet: flash point 43°C

Dry: fire resistive- self extinguishing

(application of  
flame for 15 minutes)

Store between 4°C to 40°C

### IMPORTANT

Contains volatile flammable solvents. Allow adequate ventilation. Keep away from heat and open flame. The coating thickness if exposed to cold weather. Before use they should be stored in a warm place. When stored in a cool dry place usable life is one year.

#### Note:

The parameters and properties of LB 65 closely resemble to fos\*\*r 60-95/60-96.

## LOID SEAL – 35

### DESCRIPTION

LOID SEAL 35 is a vapour barrier sealer designed for dual temperature service with cellular glass and other rigid insulation materials. Protects from corrosion when used as bedding compounds. It remains soft and tough in service and will not crack during repeated cycles of low and high temperatures.

LOID SEAL 35 seals the joints thoroughly against ingress of moisture and may be used with calcium silicate, mineral wool, fiber glass, polystyrene foam, polyurethane foam and asbestos. This can be used as a flashing compound where structural parts are breaking the insulation surface.

Loid Seal -35 does not contain asbestos, lead and mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
Grey

**Viscosity: CSTM 02**  
Soft Paste

**Specific Gravity: ASTM D 1475**  
1.45±0.05 kg/ltr.

**Average non-volatile: ASTM C461**  
97% by weight

**Service temperature limits at coated surface: CSTM 03**  
(-) 80°C to 140°C

**Water Vapour Permeance: ASTM F 1249**  
0.08 perms at 3.5 mm dry film thickness ASTM- F 1249  
The water vapour transmission through 1 inch impermeable insulation in 12 x 18 inch block of 1/8 inch joint of Loid seal 35 is too small to measure.

### SURFACE BURNING

#### CHARACTERISTICS (ASTM E 84 18b) – dry material

Flame Spread:	0
Smoke Developed:	30

### APPLICATION

#### Equipment:

Caulking Gun, Trowel, Putty knife.

#### Coverage: CSTM 04

Caulking Gun 6.4 mm bead 23 meters per kg. Trowel 0.20 sq. meters per kg. 3.0 mm wet film thickness.

#### Drying time: ASTM D 1640

Touch: within 24 hrs.

Through: 7 days, basically nondrying

#### Clean up solvents: Mineral

Sprit(Flammable), chlorinated solvent (non-flammable)

### HANDLING & STORAGE

#### Flammability : ASTM D 93

Wet: Flash point 93°C.

Dry: Very low flame spread.

Flame spread is negligible when used as sealant in 3 mm wide joints of incombustible insulation.

### IMPORTANT

Permit one week to cure before placing in heated service. Apply on clean dry surfaces only. Do not thin. When used as a flashing compound LOID SEAL 35 is effective as long as it is not trowelled out to a feather edge. Apply between 10°C to 45°C Store between 10°C to 40°C in dry cool place. Suggested usable life is 2 Years.

**Note:** The parameters and properties of LB35 closely resembles to fos\*\*r foam sealant 30-45.



The properties may change depending on specific requirement.

## **LOID SEAL – 77**

### **DESCRIPTION:**

Loid Seal 77 is a flexible vapour barrier sealer for dual temperature service with cellular glass, cellular plastic and other rigid insulation materials. It has negligible volatiles resulting it does not shrink and act as an expansion joints in the joints of rigid insulation materials. Loid Seal 77 remains soft and tough in service during repeated cycle of low and high temperatures. It seals the joints thoroughly against ingress of moisture and may be used with calcium silicate, polystyrene foam, polyurethane foam. Loid Seal - 77 is suggested as a joint sealant for metal jacketing systems.

Loid Seal 77 does not contain asbestos, lead, mercury and mercury compounds.

### **TECHNICAL DATA**

**Colour: CSTM 01**

Grey

**Specific Gravity: ASTM D 1475**

Approx. 1.7

**Average non volatile:ASTM C 461**

95% by weight

**Service temperature limited at coated**

**surface: CSTM 03**

(-) 70°C to 150°C

**Water vapour Permeance: ASTM F 1249**

0.08 perms at 3.0 mm film thickness – ASTM F 1249

Flash Point: 66°C

**Combustibility:**

Combustible, Low flame spread.

Flame spread is negligible when used as a sealant in 3 mm wide joints of incombustible Insulation.

### **APPLICATION**

Loid Seal 77 is applied with pointed trowel, putty knife or power extrusion equipment. It is thick putty and can be applied in various thicknesses without sagging.

#### **Equipment:**

Caulking gun, putty knife

#### **Application temperature range:**

4°C to 40°C

#### **Drying time: ASTM D 1640**

Non drying

#### **Coverage: CSTM 04**

0.50m<sup>2</sup> /kg for 3 mm bead

#### **Clean up solvent:**

Mineral spirits (flammable), chlorinated solvents (non-flammable)

### **IMPORTANT**

Permit one week to set before placing in heated service. Apply on clean dry surfaces only. Do not thin. When used as a flashing compound Loid Seal 77 is effective as long as it is not trowelled out to a feather edge.

Store between 10°C to 40°C .

### **SHELF LIFE**

One year from date of manufacture if stored in a cool dry place

#### **NOTE:**

The properties and parameter closely resembles to Fos\*\*r 30-45N/chiders CP-70.



## LOID SEAL – 94 A

### DESCRIPTION

Loid Seal 94 A is a tough flexible butyl elastomer based, fire resistive vapour barrier sealant designed to seal joints in metals and other insulation materials (excepting polystyrene foam). It may also be used where maintenance of a tight seal on equipment or surface subject to movement is needed. It is ideal for sealing laps of aluminium jackets for prevention of ingress of moisture. Loid Seal 94 A is a product for flashing projections and terminations where vapor seal is needed.

Loid seal 94 A is used as a joint sealant in low velocity duct of air conditioning systems.

Loid Seal 94 A does not contain asbestos, lead, mercury, mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**

White/ Aluminium Grey

**Viscosity: CSTM 02**

Thick Paste

**Specific Gravity: ASTM D 1475**

1.2 ±0.05 kg/ltr.

**Average non-volatile: ASTM C 461**

65% by weight (52% to 58% by volume)

**Service temperature limits at coated surface: CSTM 03**

(-) 100°C to 125°C

**Water vapour Permeance: ASTM F 1249**

0.0092 metric perms at 2.8 mm dry film thickness.

Water vapour transmission through 1 inch of impermeable insulation is 12 x 18 inch blocks with 1/8 inch joint of Loid Seal 94A is negligible.

### SURFACE BURNING

#### CHARACTERISTICS (ASTM E 84 15a)

##### – dry material

Flame Spread: 0

Smoke Developed: 0

### APPLICATION

**Equipment:**

Trowel, Caulking Gun, Extrusion Equipment

**Coverage: CSTM 04**

25-30 meter per kg at 6.4 mm bead.

0.226 sq met/ kg at 3 mm thickness.

**Drying time: ASTM D 1640**

Touch: 0.5 – 1 hours max.

Through: Max.48 hours

Clean up Solvent: White spirit / Xylene (flammable), chlorinated solvents (non - flammable)

### HANDLING & STORAGE

**Flammability: ASTM D 93**

Flash Point: ≥ 41°C

Wet:Flammable

The material should be stored between 4°C to 40° C.

### IMPORTANT

Protect from naked flame during application.

Adequate ventilation should be ensured.

Do not apply with polystyrene foam. Select Loid Seal 35 for Joint sealing of polystyrene foam.

Do not thin. When stored in a cool dry place useable life is one year.

**Packing:**

330ml cartridge. 25 kgs MS Drum.

**NOTE:** The properties and parameter closely resembles to fos\*\*r 95-44. The properties may change depending on specific requirement.



## LOID SEAL – 95

### DESCRIPTION

Loid Seal 95 is a fire resistive copolymer resin based vapour barrier sealants designed to seal joints in metals and other insulation materials. It may also be used where maintenance of a tight seal on equipment or surface subject to movement is needed. It is ideal for sealing laps of aluminum jackets for prevention of ingress of moisture. Loid seal 95 dries to bright, reflective, durable finish with excellent weatherproof and chemical resistant properties.

Loid Seal 95 does not contain asbestos, lead and mercury.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**  
Aluminium Grey

**Viscosity: CSTM 02**  
Thick Paste

**Specific Gravity: ASTM D 1475**  
1.2 to 1.3

**Solid Content: ASTM C 461**  
65% - 70% by weight

**Service temperature limits at coated surface: CSTM 03**  
(-) 35°C to 90°C

**Water vapour transmission: ASTM F 1249**  
Less than 0.01 perms at 3.2 mm dry film thickness

### APPLICATION

**Equipment:**

Trowel, Caulking Gun, Extrusion Equipment

**Coverage: CSTM 04**

28-30 meter per kg at 6 mm bead.

**Drying time: ASTM D 1640**

Touch: 4 – 8 hours in depending on ambient condition.

Through: Max.72 hours

Clean up Solvent: Xylol

### HANDLING & STORAGE

**Flammability: ASTM D 93**

**Flash Point:** Above 40°C

**Wet:** Flammable

**Dry:** Fire Resistive.

The material should be stored between 4°C to 35°C.

### SELF LIFE:

8 Months from date of manufacture.

### IMPORTANT

Protect from naked flame during application. Adequate ventilation should be ensured.

Do not apply with polystyrene foam. Select Loid Seal 35 for Joint sealing of polystyrene foam. Do not thin.

**NOTE:** The properties and parameter closely resembles to fos\*\*r 95-55.

## **LOID SEAL – 96**

### **VAPOUR STOP**

#### **DESCRIPTION**

Loid seal 96 is a two pack elastomeric cryogenic mastic/coating for application to cellular glass, PU foam and fibrous glass insulation in conjunction with steel, aluminum and masonry construction materials. It can function as vapour barrier adhesive in very low temperature applications.

Lois seal 96 has a excellent resistance to some chemicals, water vapour and gasses. It is applied for bonding lap joints of wood, metals and for lagging glass cloths to different surfaces.

Loid Seal 96 does not contain lead, asbestos & mercury compound.

#### **TECHNICAL DATA**

##### **GENERAL PROPERTIES**

**Colour:** CSTM 01\  
Black/ Grey

**Specific Gravity:** ASTM D 1475  
1.15 ± 0.05kg/l(mixed)

**Average non-volatile:** ASTM C 461  
Approx 75% by weight (Mixed)

**Service temperature limits at coated surface:**  
-196°C to 120° C (CSTM 03)

**Water Vapour Transmission:** ASTM F 1249  
0.007 metric perms maximum at 0.5 to 0.6 mm dry film thickness

Tensile Strength (Of cured dry film)  
>8 kg/cm<sup>2</sup> at 1.2 mm dry film as per ASTM-D 412.

**Bonding Time:**  
40 to 80 min.

##### **RESISTANCE TO**

**Weathering:** Excellent  
**Mineral oil:** Resist splashes

**Solvents:** Resist splashes  
**Saline solutions:** Excellent  
**Inorganic acids/bases:** Excellent

#### **APPLICATION**

**Mixing Ratio:**  
1:1 by volume

**Equipment:**  
Brush, roller

**Coverage:** CSTM 04  
Depends on a surface  
1.42 kg/m<sup>2</sup> at 0.8 mm dry film thickness on smooth non porous surface.

**Drying time:** ASTM D 1640  
Pot life @25°C – 40 Min. Tack Free Setting time @35°C, hr. – 30 hrs.

**Full cure:**  
2 weeks max.

**Application temperature:**  
10°C to 40°C

#### **HANDLING & STORAGE**

**Flammability:** ASTM D 93  
Flash point 38°C.  
Wet: Flammable  
Dry: Combustible  
The material should store in a well ventilated place within temperature 40°C.

**SHELF LIFE:**  
12 months from the date of manufacture if in original unopened sealed condition.

**IMPORTANT:**  
Protect from naked flame during application. Adequate ventilation should be ensured. Do not thin.

**NOTE:** The properties and parameter closely resembles to fos\*\*r 90-66. The properties may change depending on specific requirement.



## LOID SEAL – 97

### DESCRIPTION

LOID SEAL 97 is a flexible vapour barrier sealer designed for dual temperature service with cellular glass, cellular plastic, PIR and phenolic foam board insulations. It remains soft and flexible and prevents damage to the insulations materials due to thermal cycling.

Loid seal 97 is primary use with low temperature insulation to prevent the migration of water vapour. It is also used as a bedding compound for cellular glass insulation.

Loid seal 97 does not contain asbestos, lead and mercury compounds.

### TECHNICAL DATA

#### GENERAL PROPERTIES

**Colour: CSTM 01**

Tan/Grey

**Viscosity: CSTM 02**

Soft Paste

**Specific Gravity: ASTM D 1475**

1.50 to 1.55KG/L

**Average non-volatile: ASTM C 461**

Approx 90% by weight  
(83% by volume)

**Service temperature limits at coated surface: CSTM 03**

-150° C to 105° C

**Water Vapour Transmission: ASTM E-96**

(Negligible) The water vapor transmission through 1 in. of impermeable insulation in 12x 18 in. block with 1/8 in. joints of Loid Seal – 97 is too small to measure.

### APPLICATION

**Equipment:**

Caulking Gun, Trowel, Power extrusion

**Coverage: CSTM 04**

0.20 m<sup>2</sup>/kg at 3mm wet film thinness.

**Drying time: ASTM D 1640**

2-3 hours for skin formation and it is basically non-drying.

**Clean up Solvent:**

White spirit.

### HANDLING & STORAGE

**Flammability: ASTM D 93**

**Wet:** Flash point 65°C (ASTM D3278)

**Dry:** Combustible, slowly burns (CSTM 06)

Flame spread is negligible when used as a sealant in 3.2 mm wide joints of incombustible insulation.

### IMPORTANT

Permit one week to cure before placing in heated service. Apply on clean dry surfaces only. Do not thin. When used as a flashing compound LOID SEAL 97 is effective as long as it is not towelled out to a feather edge.

Apply between 15°C to 40°C

Store between 10°C to 40°C.

When stored in a cool dry place usable life is one year

**NOTE:** The properties and parameter closely resembles to Fos\*\*r 95-50. The properties may change depending on specific requirement.



## CC- 444 (SEALANT)

### DESCRIPTION

CC 444 is a vapour barrier sealer designed for dual temperature service with cellular glass and other rigid insulation materials. Protects from corrosion when used as bedding compounds. It remains soft and tough in service and will not crack during repeated cycles of low and high temperatures.

CC 444 seals the joints thoroughly against ingress of moisture and may be used with calcium silicate, mineral wool, fiber glass, polystyrene foam, polyurethane foam and asbestos. This can be used as a flashing compound where structural parts are breaking the insulation surface.

CC- 444 does not contain asbestos, lead and mercury compounds.

### TECHNICAL DATA

**Colour: CSTM 01**  
Grey

**Viscosity: CSTM 02**  
Soft Paste

**Specific Gravity: ASTM D 1475**  
1.4 to 1.5

**Average non-volatile: ASTM C 461**  
Approx 90% by volume

**Service temperature limits at coated surface: CSTM 03**  
(-) 70°C to 140°C

**Water Vapour Permeance:** 0.08 perms  
at 3.5 mm dry film thickness ASTM- F 1249

### APPLICATION

**Equipment:**  
Caulking Gun, Trowel, Putty knife.

**Coverage: CSTM 04**  
4 kg /sq mtr. @ 3 mm thickness

**Drying time: ASTM D 1640**  
Touch: within 24 hrs.  
Through: 7 days

**Clean up solvents:** Mineral  
Sprit(Flammable), chlorinated  
solvent (non-flammable)

### HANDLING & STORAGE

**Flammability: ASTM D 93**  
Wet: Flash point  $\geq 200^{\circ}\text{C}$ .  
Dry: Low flame spread.  
Flame spread is negligible when used  
as sealant in 3 mm wide joints of  
incombustible insulation.

### IMPORTANT

Permit one week to cure before placing in heated service. Apply on clean dry surfaces only. Do not thin. When used as a flashing compound CC 444 is effective as long as it is not trowelled out to a feather edge. Apply between 10°C to 45°C. Store between 10°C to 40°C in dry cool place. Suggested usable life is 2 Years

**Note:** The parameters and properties of CC444 closely resembles to Pittsburgh Corning Pittcote 444.



## CAPRISEAL RTV SILICONE SEALANT

### DESCRIPTION

Capriseal silicone sealant is a one component product which cures to a tough, rubbery solid when exposed to air. Capriseal silicon sealant will adhere to metal, glass, ceramics, wood, natural and synthetic fibers. It is also ideal for sealing laps of aluminum jacket for prevention of ingress of moisture. Since it does not flow on its own weight, this sealant can be applied on sidewall and overhead joints.

Capriseal silicone sealant has excellent resistance to weathering, vibration and extreme temperatures. Fully cured sealant can with stand 200°C for continuous service temperature.

### TECHNICAL DATA

- **General Properties as supplied**

**Colour:**

White, clear, Grey

**Viscosity:**

Paste like

**Specific Gravity:**

1.0 approx

**Flow, sag or slump:**

Nil

**Working Time:**

10 minutes

**Surface cure time:**

20 minutes

- **As cured 7 days in air at 25°C at 50% relative humidity**

**Hardness, shore A (Durometer ASTM D 2240):**

20

**Tensile strength( ASTM D-412):**

2.0 MPa

**Elongation percentage (ASTM D-412):**

500

**Temperature stability:**

(-)50°C to 200°C

**Movement:**

+25%

**Dielectric strength:**

18 kV/mm

### HOW TO USE

#### 1) Substrate Preparation

All surfaces must be clean and dry. Degrease and wash with suitable solvents such as MEK acetone, M.T.O. to remove any oils and contaminants. Wipe with dry cloth to remove any traces of solvents.

#### 2) How to apply

Apply Capriseal silicon sealant to one of the prepared surface and then quickly adhere with other substrate. One exposure to moisture in air, there will be skin formation. Any tooling should be completed before skin is formed. Normal tool used is spatula. After skin has formed do not disturb for 48 hrs. On porous surfaces allow sealant to cure before removing by abrasion. Cured sealant is not soluble and must be trimmed with knife.

#### 3) Usable life and storage

When stored below 30°C in the original unopened packing, this product has a usable life of one year from the date of shipment.

#### 4) Important

Protect from naked flame during application. Adequate ventilation should be ensured. Do not thin.

### PACKAGING INFORMATION

Capriseal silicon sealant is supplied in 300 ml cartridge.



## CAPRISEAL HIGH TEMPERATURE SEALANT

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### DESCRIPTION:

Capriseal High Temperature Sealant is a single component heat resistant sealer specially developed for sealing joints and gaps in oven and chimneys and Fire duct systems. It withstand to temperature of 250° C to 400°C in oven gaps .It is a water base sealer & free from silicon .

### Typical Properties:

Colour	: Grey
Viscosity	: 90,000 to 1, 15,000 cps
Hardness	: 45 - 55 shore A
Flow	: Nil
Specific Gravity	: 1.3 - 1.5
Adhesion to MS & GI	: Good

**Application:** Surface should be free from oil & dust. Capriseal High Temperature Sealant can be applied by gun, spatula or brush.

**Storage:** To be stored indoors, away from direct sunlight, heat source and moisture.

**Shelf Life:** Six months under above conditions

**Packing:** 300 ml Cartridge packaging.



## Capriseal Weather Proofing Sealant

### DESCRIPTION

Capriseal weather proofing sealant is designed for sealing expansion and control joints, precise concrete panel joints, on structural curtain wall mullion joints, stress cracks, tiles and granite joints etc.

### ADVANTAGES:

1. Long life under all weather conditions.
2. All weather applicability.
3. Neutral cure.
4. Good bonding without primer and good joint movement.

### TECHNICAL DATA

#### · General Properties as supplied

COLOUR:  
White

FULL ADHESION:  
7-11 days

WORKING TIME:  
30-45 minutes

FLOW, SAG OR SLUMP:  
Non-sag

TACK-FREE TIME:  
Less than 100 minutes

CURING TIME:  
3-6 days

· As cured 6 days in air at 25°C at 50% relative humidity

SHRINKAGE:  
Max 0.5%

TENSILE STRENGTH AT BREAK:  
1 MPa

TEMPERATURE STABILITY:  
-50°C TO +155°C

ELONGATION:  
360 %

TEAR STRENGTH, DIE B:  
3500 N/m

HARDNESS, SHORE A:  
25 Points

JOINT MOVEMENT CAPABILITY AFTER 21 DAYS OF CURE:  
± 30%

### HOW TO USE:

#### 1) Substrate Preparation

All surfaces must be clean and dry. Degrease and wash with suitable solvents such as MEK acetone, M.T.O. to remove any oils and contaminants. Wipe with dry cloth to remove any traces of solvents.

#### 2) How to Apply:

Install backing material or joint filler, setting blocks, spacer shims and tapes. Areas adjacent to joints may be masked to ensure neat sealants lines. To confirm optimum adhesion on either a porous or non-porous surface, adhesion testing should always be carried out prior to the commencement of any project. Apply Capriseal water proofing sealant in a continuous operation using a positive pressure. Tool the sealant with light pressure to spread the sealant against backing material and the joint surfaces before a skin forms. The applied sealant should be tooled within 15-20 minutes of before a cured skin forms. Remove masking tape as soon as the bead is tooled.

#### 3) Usable life and storage

When stored below 30°C in the original unopened packing, this product has a usable life of one year from the date of shipment.

#### 4) Important

Protect from naked flame during application. Adequate ventilation should be ensured. Do not thin.

### PACKAGING INFORMATION

Capriseal weather proofing is supplied in 300 ml cartridge.

## **LOID BOND – 17**

### **DESCRIPTION**

An excellent adhesive for bonding fibrous insulation, expanded polystyrene, rigid polyurethane foam, foam glass to structural surfaces. It is designed as one-way stick adhesive. It can be efficiently used for sticking aluminum foil Kraft paper, glass cloth to fibrous insulation. Loid bond – 17 is non flammable in wet state and totally incombustible in dry state. It is rot proof and resistant to mould growth.

### **TECHNICAL DATA**

**Colour : CSTM 01**  
Off White

**Viscosity: CSTM 02**  
Troweling consistency

**Specific Gravity: ASTM D 1475**  
1.65 to 1.70

**Service Temperature Limits at coated surface: CSTM 03**  
(-) 10°C TO 500°C

**Coverage: CSTM 04**  
2 sq.m per kg at 0.3 mm wet film thickness

**Application:**  
Spatula or Trowel

**Solvent Clean up:**  
Water

**Drying Time: CSTM 05**  
Touch Dry 4 to 6 Hours  
Through 24 to 36 Hours

**Flammability: ASTM D 3278**

**Flash point:**  
No flash to boiling

**Wet:**  
Non-flammable

**Dry:**  
Incombustible

### **Shelf Life:**

Six months from date of manufacture is stored in a cool dry place

### **APPLICATION**

Make the surface free of dirt, dust and grease. Apply Loid Bond – 17 with a spatula or a trowel to the cleaned surface and press the insulation on the surface uniformly. Use bands to support the insulation on the surface until the adhesive has cured. Application to be done above +10°C.



## LOID BOND - 71

### DESCRIPTION

Loid Bond 71 is a synthetic resin emulsion. It is non-flammable in the wet state. The adhesive has a smooth, mastic consistency and can be applied to either the insulation or the substrate.

Loid Bond 71 is a high tack, rapid-setting water base adhesive for bonding polystyrene foam insulations, fibrous glass insulation and PIR/polyurethane board stock insulations to concrete, masonry, gypsum board. It is also ideal for bonding fibrous insulations to painted or unpainted steel, galvanized or aluminium surface.

### TECHNICAL DATA

**Colour: CSTM 01**  
Cream

**Viscosity: CSTM 02**  
Soft paste

**Application:**  
Brush, Gob or Notched trowel

**Average non- volatile: ASTM D 1644**  
64% by weight

**Coverage: CSTM 04**  
Subject to type of surface and nature of material to be bonded. 20-60 sq.mtr/kg

**Drying time: CSTM 05**  
Bonding time: 0 to 30 minutes  
Set through: 30 to 120 minutes

**Service temperature limit: CSTM 03**  
(-)29°C to 60°C

**Flammability: ASTM D 3278**  
No flash to boiling. > 60°C

**Surface Burning Characteristics:**  
Flame Spread: 0  
Smoke Developed: 0

### APPLICATION

Apply with a notched trowel to clean metal surface, rather than to insulation material. galvanised metal must be primed with suitable etching primer. Apply to metal surface and then press the insulation on the surface.

### INSTRUCTIONS

Store and apply between 4°C and 38°C protect from freezing until dry. Always test plastic foam insulation for warpage when using a water base adhesive. Overhead applications may require mechanical fasteners. When used a contact adhesive between impermeable materials the adhesive must be allowed to dry on both surface before mating to avoid entrapment of water.

On rough or uneven surfaces, a thicker application of adhesive may be required in order to assure contact between insulation and substrate. Very rough surfaces should be back-plastered.

Loid Bond 71 contains no asbestos, lead, mercury compounds.

**NOTE:**  
The properties and parameter closely resembles to fos\*\*r 97-15



## LOID BOND- 80

### DESCRIPTION

Loid Bond – 80 is quick setting adhesive with fibrous glass, duct wrap and acoustic linings for air handling ducts. This adhesive is use for bonding fibrous glass to the interior or exterior sheet metals of air- conditioning ducts.

Loid Bond-80 does not contain asbestos, lead & mercury.

### TECHNICAL DATA

**Colour: CSTM 01**

Light Cream

**Viscosity: CSTM 02**

Thin liquid

**Specific gravity: ASTM D 1475**

0.75 to 0.8

**Average non- volatile: ASTM D 1644**

26% by weight

**Coverage: CSTM 04**

5 m<sup>2</sup>/lit 0.2 mm wet film thickness.

**Drying time: CSTM 05**

Bonding time: 3 to 10 mint.

**Service temperature limit: CSTM 03**

(-)30°C to 95°C

**Solvent clean up:**

Xylol

**Application:**

Spray, Brush or roller

**Flammability: ASTM D 3278**

Wet: flash point (-15)°C.

Dry: burn slowly

### INSTRUCTIONS

We do not recommend using at temperature above 30°C Contains flammable volatile solvents. Avoid prolonged breathing of vapor. Use with adequate ventilation. Stir well before use. Do not thin. Refer to us for application.

Procedure above temperature limit given. Covering capacity depends on the nature of insulate being used.

When stored in a cool dry place usable life is one year.

**NOTE:**

The properties and parameter closely resembles to fos\*\*r 85-15. The properties may change depending on specific requirement.



## LOID BOND- 83 ADHESIVE

### DESCRIPTION

A superior adhesive for cementing thermal insulation to all structural surfaces as well as to each other. It is a quick setting, with good specific adhesion to iron, steel, aluminium, magnesium alloys and all types of thermal insulation. Loid Bond-83 may also act a fire resistive and corrosion resistive protective coating over all metal surfaces. Loid Bond 83 withstands surface temperature up to 140° centigrade.

Excellent resistance to water and high humidity makes Loid bond-83 a good sealing compound for joints and seams of pipe insulation. Normal combustion type of insulation can be made more fire resistive by proper application of Loid Bond-83.

This is the preferred adhesive for rigid polyurethane insulation to prevent joints opening at low temperature and causing failure of vapour barrier finish. Loid Bond – 83 does not contain asbestos, lead and mercury.

### TECHNICAL DATA

**Colour: CSTM 01**

Off-White

**Viscosity: CSTM 02**

Paste

**Specific gravity: ASTM D 1475**

1.4 to 1.5

**Average non- volatile: ASTM D 1644**

72% by weight (62% by volume)

**Coverage: CSTM 04**

0.7 sq. meter per kg 1 mm wet film thickness.

**Drying time: CSTM 05**

Bonding time: 2 to 10 min max.

Set through: 48 to 72 hours max.

**Service temperature limit: CSTM 03**

(-)59°C to 150°C

**Application:**

By trowel

**Solvent clean up:**

Xylene (flammable), chlorinated solvents (non-flammable)

**Flammability: ASTM D 3278**

Wet: flash point 43°C

Dry: Fire Resistive – self-extinguishing  
(application of flame for 15 minutes)

**Leachable Chloride content : ASTM C-871**

Max. 90 ppm

### SURFACE BURNING

#### CHARACTERISTICS (ASTM E 84 15a) – dry material

Flame Spread:	10
Smoke Developed:	185

### APPLICATION

Apply with a notched trowel to clean metal surface, rather than to insulation material. galvanised metal must be primed with suitable etching primer. For use on calcium silicate, 85 % magnesia, mineral wool, fibrous glass, cellular glass, cork polyurethane foam and expanded ebonite, but not for use with polystyrene foam. Apply to metal surface and then press the insulation on the surface.

### INSTRUCTIONS

We do not recommend using at temperature above 38°C. Contains flammable volatile solvents. Avoid prolonged breathing of vapor. Use with adequate ventilation. Stir well before use. Do not thin. Refer to us for application procedure above temperature limit given. Covering capacity depends on the nature of insulate being used.

When stored in a cool dry place usable life is one year.

**NOTE:**

The properties and parameter closely resembles to fos\*\*r 81-33. The properties may change depending on specific requirement.

## **CC-88** **(ADHESIVE)**

### **DESCRIPTION**

CC-88 is a two part adhesive for bonding FOAMGLAS insulation to itself or to other porous or nonporous substrates. Air curing is not required. It has excellent wetting characteristics and cures to form a flexible bond that absorbs mechanical and thermal shock.

### **TECHNICAL DATA**

**Colour:**

Black

**Specific gravity:**

1.0 to 1.2 (Kg/L)

**Average non-volatile:**

94% by weight

**Service temp limits at coated surface:** -

56°C to 82°C

**Water vapour Permeance:**

0.005 perms

**Coverage Wet:**

0.4 to 0.6 m<sup>2</sup>/l

**Flammability:**

Wet: Flash point: >65°C

### **SURFACE PREPARATION:**

Surface must be free of moisture, loose scale and rust, dust, oil and grease. Asphaltic primers, coal tars, silicones, alkyd or other solvents sensitive or thermoplastic primers or coatings should not be used.

Block should break before adhesive peels from surface. A one quart kit is available on request for test purposes.

### **MATERIAL PREPARATION:**

This is a two component material that must be mechanically mixed prior to use.

To avoid waste and obtain desirable properties, certain procedures must be followed. Temperature of adhesive, substrate and the ambient temperature will affect working time and cure. Higher temperatures

reduce working time, viscosity and cure. Lower temperatures increase viscosity and lengthen the working time and cure. Store adhesive out of direct sunlight and at temperatures as close to 25°C as possible and for at least 2 hours before use.

Lay out work before mixing. Make sure equal containers of component 1 [19 liter] and component 2 [0.4 liter can] have been received and are on the job site.

Mix component 1 two to three minutes before adding component 2. A 19mm (3/4 in.) heavy duty drill and good mixing paddle or PC mixer is required. When work is ready, add component 2 to component 1 and mix for approximately 5 minutes. Move mixer around inside the pail. Incomplete mixing can lead to incomplete cure and residual odours.

### **APPLICATION**

Adhesive may be applied to either or both surfaces. Application to the rougher surface (i.e., FOAMGLAS insulation) generally gives the best results.

Adhesive must be spread and blocks applied within the working time and before adhesive sets. Adhesive that has set cannot be recovered. On curved or overhead surfaces, temporary support and/or the HOLD CATALYST system may be needed.

Trowels should be cleaned frequently and examined for wear. Clogged or worn trowels can cause either too little or too much adhesive being used. Adhesive that has set cannot be recovered. Additional coats of adhesive must be applied within 8 hours to assure bonding to the previous coat. If adhesive has cured more than 8 hours, rub briskly with a commercial gloss remover or abrade before recoating.

**CLEAN UP:** Mineral spirits or kerosene.

**Note:** The parameters and properties of CC 88 closely resembles to Pittsburgh Corning Pittcote PC 88. The properties may change depending on specific requirement.



## LOID BOND- 84

### DESCRIPTION

Loid Bond-84 is a two-component, high strength thermosetting urethane adhesive containing no flammable solvents. It is designed to bond various types of low-temperature insulation to themselves and to metal and masonry substrates. After curing, it forms a strong, yet flexible bond capable of withstanding thermal shock and mechanical impact.

Loid Bond-84 can be used as both an attachment adhesive and joint sealant in low temperature installations using cellular glass, polystyrene, or rigid board stock polyurethane foam insulations. It contains no asphalt and can be top coated with solvent base products without bleed-through.

Loid bond-84 contains no asbestos, lead, mercury, or mercury compounds.

### TECHNICAL DATA

**Colour: CSTM 01**

Part A- Cream  
Part B- Brown

**Average Wight: ASTM D 1475**

Part A – 1.37 Kg/l  
Part B – 1.23 Kg/l  
Mixed – 1.35 Kg/l

**Average non- volatile: ASTM D 1644**

97% by volume  
98% by weight

**Coverage: CSTM 04**

Varies with type of insulation.  
0.36 to 1.80 m<sup>2</sup>/kg

**Mixing Ratio:**

9 Parts A: 1 Part B (By Weight)

**POT Life:**

1-2 hours @ 25°C

**Drying time: CSTM 05**

Set to touch: 8 hours @ 25°C  
Dry through: 24 hours @ 25°C  
Maximum Strength: 7 Days @ 25°C

**Service temperature limit: CSTM 03**

As a joint sealant/adhesive with Urethane Foam  
(-) 190°C to 93°C  
Urethane Foam to Metal  
(-) 162°C to 93°C  
Cellular Glass Insulation  
(-) 73°C to 93°C

**Application:**

Trowel or Brush

**Flammability: ASTM D 3278**

Wet: flash point 93°C

### LIMITATIONS

Store and apply between 4°C and 38°C.

Allow 48 hours curing time at 23°C minimum before placing in service.

Pot life will be longer at lower temperatures, shorter at higher temperatures.

Part B is sensitive to moisture and humidity. Keep container tightly sealed when not in use.

Do not heat Part A, Part B, or the mixed material to above 38°C.

**NOTE:**

The properties and parameter closely resembles to fos\*\*r 81-84. The properties may change depending on specific requirement.



## LOID BOND 87

### DESCRIPTION:

Loid Bond 87 is a superior adhesive to adhere dense thermal insulation materials such as 85% magnesia, asbestos cloth, asbestos block calcium silicate and expanded perlite to itself and non porous surfaces. After drying this adhesive forms a hard brittle incombustible film. Since the dry film is soluble in water it is advisable not to use Loid Bond – 87 where moisture ingresses.

Loid Bond -87 contains no asbestos, lead and mercury compound.

### TECHNICLE SPECIFICATION:

**Colour: CSTM 01**

Light Grey

**Viscosity: CSTM 02**

Soft Paste

**Specific Gravity: ASTM D 1475**

1.45

**Average Non Volatile: ASTM D 1644**

53%

**Average Coverage: CSTM 04**

1.25 Sq. meter per Kg.

**Drying Time: CSTM 05**

Bonding Time : 15 mts.

Set Through : 8 hours

**Service Temperature Limits at coated surface:**

10° C to 450°C CSTM 03

**Application:**

Brush

**Solvent For Clean Up:**

Water

**Flammability**

Flash point: No flash to boiling, 100°C

Wet: Non- Flammable

Dry - Incombustible

**IMPORTANT:**

1. Stir well before use.
2. Protect from freezing during storage.
3. It is not recommended for use with glass or mineral wool.
4. Do not use on painted surface.

**SHELF LIFE**

Six months from date of manufacture if stored in cool and dry place

**NOTE:**

The properties and parameter closely resembles to fos\*\*r 81-27. The properties may change depending on specific requirement.



## LOID BOND 88

A superior adhesive suitable for cementing, SS foil to SS foil & other surfaces like concretes, metals & hard insulation board. It is suitable for working at a service temperature of 540°C.

### TECHNICAL SPECIFICATION

<b>Colour:</b>	Light Grey
<b>Viscosity:</b>	Soft Paste
<b>Specific Gravity:</b>	1.5 to 1.55
<b>Average Non Volatile:</b>	Max. 70% by weight
<b>Average Coverage:</b>	0.8 Sq. meter per Kg.
<b>Setting Time:</b>	8 to 10 hrs at 50% RH
<b>Application:</b>	Brush / Notched Trowel
<b>Solvent For Clean Up:</b>	Water
<b>Flammability:</b>	Wet – Non Flammable Dry - Incombustible

### IMPORTANT :

1. Stir well before use.
2. Protect from freezing during storage.
3. It is not recommended for use with glass or mineral wool.
4. Do not use on painted surface.

When stored in a cool dry place usable life is one year.



## CAPRIPLAST

Capriplast is a black rubberized bituminous adhesive cum waterproofing compound of paste consistency for cold application. It is noncorrosive and adheres firmly to most surfaces. Because of its plastic nature it does not crack or flake off when applied to clean, dust and oil free surfaces.

### TECHNICAL DATA:

<b>Colour:</b>	Black
<b>Viscosity :</b>	Soft Paste
<b>Sp. Gravity:</b>	1.2
<b>Average Non volatile:</b>	42% by weight
<b>Flash Point:</b>	37°C

### APPLICATION:

<b>Equipment:</b>	Trowel/Brush
<b>Coverage:</b>	1.5sq metr/kg
<b>Drying Time:</b>	30mts
<b>Cleanup solvent:</b>	M.T.O

Capriplast is recommended for fixing of Thermocole, P.U foam and fiberglass insulation to all type structures. It is also recommended to fill the cracks of the concrete roofs and AC Sheets.

### SELF LIFE:

- One year in sealed container.



## CAPRIKOT T-12

### Bituminous Cold Applied Clay Type Emulsion

#### DESCRIPTION:

**Caprickot T-12** is water based bituminous emulsions made from selected grades of bitumen with fibrous fillers. **Caprikot T-12** set within 48 hours and remain plastic on insulation material and take care of vibrations generated from pipes & equipment.

The dried films of **Caprikot T-12** has improved rheological properties. **Caprikot T-12** is tough non-flowing, resilient and strongly adhere to almost all types of surface.

#### CHARACTERISTICS:

##### Caprikot T-12

##### Colour :

Brown to Chocolate

##### Consistency :

Brushable/Trowel able

##### Drying Time

(Touch) 8 Hrs.

(Through) 48 Hrs.

##### Coverage:

10 kg / Sq. M for 6 mm thickness.

##### Dry Film thickness:

6 mm in 2 coats

##### Specific Gravity:

1.15

##### Service Temperature:

(-) 25°C to 130°C

#### APPLICATION:

**Caprikot T-12** is recommended for protecting various types of thermal insulations to maintain their thermal efficiency.

**Caprikot T-12** give a coatings, which when set is joint-less and impervious to moisture. It also possesses plastic characteristics to resist cracking due to vibrations, temperature fluctuations.

#### Advantages:

- Excellent vapour barriers.
- Retains thermal efficiency during all weather conditions.
- Economical and effective insulation material.
- Solvent free and hence eco-friendly and non-toxic.

**NOTE:** The properties and parameter closely resembles to Fos\*\*r 90-07/ 90-10. The properties may change depending on specific requirement.



## CAPRIKOT T-14

Bituminous Cold Applied Clay Type Emulsion

### DESCRIPTION:

**Caprickot T-14** is water based bituminous emulsions made from selected grades of bitumen with fibrous fillers. **Caprikot T-14** set within 48 hours and remain plastic on insulation material and take care of vibrations generated from pipes & equipment.

The dried films of **Caprikot T-14** have improved rheological properties. **Caprikot T-14** is tough non- flowing, resilient and strongly adhere to almost all types of surface.

### CHARACTERISTICS:

#### Colour:

Brown to Chocolate

#### Consistency:

Brush able/Trowel able

#### Drying Time

(Touch) 8 Hrs.

(Through) 48 Hrs.

#### Average Non Volatile:

62%  $\pm$  2 by weight

#### Coverage:

10-12 kg / Sq. M for 6 mm thickness.

#### Dry Film thickness:

6 mm in 2 coats

#### Specific Gravity:

1.25  $\pm$  0.05 kg/l

#### Service Temperature:

(-)23°C to 180°C

#### Water Vapour Permeance:

$\geq$  1 perms @ 1.6 mm DFT

#### SURFACE BURNING

CHARACTERISTICS (ASTM E 84-2022) –  
dry material

Flame Spread: 05

Smoke Developed: 50

### APPLICATION:

**Caprikot T-14** is recommended for protecting various types of thermal insulations to maintain their thermal efficiency.

**Caprikot T-14** gives a coatings, which when set is joint-less and impervious to moisture. It also possesses plastic characteristics to resist cracking due to vibrations, temperature fluctuations.

#### Advantages:

- Excellent vapour barriers.
- Retains thermal efficiency during all weather conditions.
- Economical and effective insulation material.
- Solvent free and hence eco-friendly and non-toxic.



## BITUMEN MASTIC (PRIMER)

Bitumen Mastic is a black bituminous anticorrosive paint suitable for application by brush. It conforms to IS 158. It is used specially for the protection of water tanks. Also used for protection of steel structure, Masonry, Metal, Reinforced cement sheet etc.

Bitumen Mastics a ready to use single component quick drying low viscosity primer in liquid form.

### CHARACTERISTICS:

**Colours:** Black

**Viscosity@ 27°C:** 25-130 second

### Drying Time:

Touch 20 mint. To 30 mint.

Hard 24 hours.

**Coverage:** 10 sq mtr/ lit on clean smooth, impervious surface

**Solid Content:** 55%

**Interval between successive coats:** 1 hours

**Relative Density :** 0.80- 0.92 kg/m<sup>3</sup>

**Flash Point:** 35°C

**Water, vol% :** 0.5 max

**Distillation, volume % of primer:**

- Up to 225°C Min. : 35
- Up to 360°C Max. : 66

### Residue obtained from distillation up to 360°C:

- Penetration @25°C, 100gm, 5Sec, dmm : 20 to 50
- Matter soluble in trichloroethylene, %, min.: 99

### CLEAN – UP

Use solvents for cleaning equipment and tools immediately after applying.

### APPLICATION:

- The surface should be cleaned thoroughly before application.
- The primer should be applied on the surface at the recommended coverage rate.
- Keep the lid tightly closed when not in use.

### SELF LIFE :

- One year in sealed container.



## CAPRISEAL FIRESTOP SEALANT

### DESCRIPTION

Capriseal Firestop Sealant is developed for sealing applications in various area (Commercial or Grouped Residential Construction) and in any FIREPRONE area.

Capriseal Firestop Sealant can be used in systems where dynamic movement is expected, plumbing, HVAC, bath and dryer vents, metallic pipes, non-metallic pipes, conduits and tubing, insulated pipes, electrical and electronic cabling, concrete, gypsum, metal ductwork, wood floors.

Capriseal Firestop Sealant is a fast elastomeric compound designed as a fire joint sealant for high velocity. It may be used with or without reinforcing tapes. It has a mild odour and applies cleanly without stirring. Mechanical fasteners and required for stricter rigidity.

Capriseal Firestop Sealant is also used to seal gaskets where flexibility is required. It can be used to adhere duct fabrics and flexible tubing run outs to high velocity ducts and to mixing boxes or air diffuser heads.

### APPLICATION CONSISTENCY:

Apply by brush, cartridge gun, trowel or extrusion. On body apply a thick coat of Capriseal Firestop Sealant. Brush excess Capriseal firestop sealant over the exterior of the joint and over the heads of all metal screws after they are in place and the joints is mechanically fastened.

### TECHNICAL DATA:

**Appearance:** Viscous Smooth – Grey

**Odor :** Characteristic

**Boiling Range / Point:** N.A.

**Melting Point / Freezing Point:** N.A.

**Vapor Density:** N.A.

**Specific Gravity:** 1.4

**pH :** Neutral

**Solubility in water @ 30°C :** Soluble when wet.

### COVERAGE RANGE:

**Brush :** 25-50 sq./gal(0.6-1.2m/l) 0.032 in. -0.064 in.  
(1.6 mm) 0.032(0.8mm) wet film thickness.

**Caulking Gun:** 130 lineal ft. per 11 fluid oz tube, 1/8in. Bead (40m/0.33 per tube, 3.2 mm bead)

**Service Temperature Limits (FSTM 70) :**  
Temperature at coated surface 20°F to 200°F (-7°C to 93°C)

**Drying Time 75°F (24°C) 50% RH :**

Set touch :1 hour,

Dry Through: 16 hours.

**Wet Flammability (ASTM D 3828):** No flash to Boiling over 210°F (99°C).

### SPECIAL FEATURE:

- Zero percent VOC.
- Totally Eco-Friendly product.
- Specially developed for green building projects.
- Releases only water vapour.

### Fire fighting measures:

**Fire Extinguishing media :** Carbon di oxide, Dry Chemical or water spray.

**Special Procedures:** Entering drains, sewers or rivers.

**Fire Extinguishing media :** Fire Extinguishing media.

### HANDLING & STORAGE:

**Handling :** No Special measure necessary.

**Storage:** Store in cool place away from direct sunlight. Storage at 18°C to 23°C is recommended.

### PACKAGING INFORMATION

Capriseal Firestop Sealant is supplied in 300 ml cartridge

## HEAT TRANSFER CEMENT HTC-536

### DESCRIPTION

Tracers are applied to piping and equipments to maintain, raise or lower a temperature. Usually tracers are used to maintain hot temperatures.

Heat transfer cement increases the heat transfer coefficient and the heat transfer area.

Use of heat transfer cement in tracer pipe system.

- i Improves heat transfer and reduces the number of tracers on a pipe.
- ii A single tracer with heat transfer cement may transfer more heat than three bare tracers.
- iii The heat up time of a process can be shortened resulting conserve energy.

HTC-536 is inorganic based and can be used as high as 550°C temperature. It has fire resistant property and will not burn or support combustion. The binder is soluble in water and must be protected from moisture.

HTC-536 does not contain asbestos, lead and mercury.

### TECHNICAL DATA

**Colour:**

Black Grey powder

**Density:**

Approx 1.2gm/cc,( 1.20±0.05 KG/L)

**Maximum Tolerance Temp.:**

677°C

**Coverage:**

31 kg/m<sup>2</sup> Dried film thickness: 15 mm

**Setting time:**

48 hours max

**Thermal conductivity:**

6.5k cal/hr m°C at 200°C mean temp.

**Heat transfer co efficient:**

100-200 k cal/ m<sup>2</sup> hrC°

**Bond Shear Strength kPa :**

1.10 (ASTM D 1002-1999)

**Electrical resistivity test:**

1.299 Ω/cm (ASTM G 57)

### APPLICATION

HTC-536 should be mixed with water at 50:50 ratio to make a homogenous mass. The metal surfaces should be free from rust, grease etc.

Apply by trowel. Keep tools wet by dipping in water or wiping with damp cloth. Should be forced in to interspaces between the tubing with a uniform thickness of 2.5 to 3 mm.

Setting time is 48 hrs at 30°C and 50% RH. Should be protected from rain till thermal insulation material is applied.

### STORAGE

Storage in a cool and dry place.

### SHELF LIFE

When stored in a cool and dry place life is 2 Years from date of manufacture.

## CAT -9 SELF SETTING CEMENT

### DESCRIPTION

An intimate composite of uniquely developed and researched asbestos free inorganic mineral fiber combined with hydraulic cement and chemically inert fillers. CAT – 9 cement combines with water to form a general purpose protective coating with self-setting properties as per IS 9743 and BS 3533.

CAT -9 cement is suitable for application on thermal insulation of various types and sets without application of heat to produce a hard surface layer resistant to weather, impact and abrasion damage. CAT-9 self-setting cement conforms with BS 3958 : part 6 or IS 5724-1970.

CAT-9 Self-setting cement fulfils a vital function in the total insulation system by protecting both the integrity and thermal efficiency of basic insulant.

Application includes steam turbines, vessels, tanks, pipe works, chemical process plants, gas ducts etc. It is non-combustible as per BS 476 part 4 and therefore suitable for surfacing light weight fire protection media applied on structural steel works.

### MIXING AND APPLICATIONS

CAT-9 is normally mixed in a ratio of 4 parts of cement by weight to 3 part by weight of water. Actual proportion may vary with substrate. The mix material should be used within 2 hours. Unused material should not be used with a fresh

batch. CAT-9 is suitable for application by conventional trowelling methods.

Where additional mechanical strength is needed, the cement may be applied over wire netting, or expanded metal. Any pins or clips used to secure such reinforcement to the equipment should be turned down into close contact with the surface of insulation before the application of the cement.

### PHYSICAL PROPERTIES:

#### Typical Values:

**Applied density:**  
1200 to 1250 kg/m<sup>3</sup>

**Box density:**  
750 to 800 kg/m<sup>3</sup>

**Wet covering capacity:**  
Approx 62 meter square per MT 12 mm thickness, 125 meter square per MT at 6 mm thickness.

**Resistance to impact:**  
20-24 mm

**Resistance to Compression:**  
4500-5000 KN/m<sup>2</sup>

**Shrinkage:**  
0.18% maximum

**Initial Set:**  
(Setting time) within 24 hours  
**Final Set:** 20-25 days after lying



**Drying time:**

48 hrs under normal condition up to 72 hrs under cold humid conditions.

**Temperature limit:** 700°C for continuous service conditions

**EXPANSION JOINTS**

Expansion joints are desirable where the cement is subject to the effects of appreciable expansion and contraction of the underlying surfaces, so as

to limit the size of each independent panel to approximately 2m x 2m.

**STORAGE**

CAT-9 cement should always be stored under dry conditions. Shelf life of CAT-9 is one year if store in cool & dry place.

**PACKING**

50 KG HDPE bags with inner polyethylene liner.

## CAT - 11

### DESCRIPTION

CAT 11 is a reactive gypsum product that is mixed with water to form an inorganic, non combustible adhesive or coating for fabricating and bore coating.

CAT 11 is normally used at operating temperatures above 93°C (200°F).

It contains no chloride, fluoride, mercury, zinc or other low melting metals.

### MIXING AND APPLICATIONS

Store in a dry area. Lumpy material should not be used. The volume mix ratio for fabricating is 2.0/1 (powder/water). Powder and water may be mixed in a container and applied by tool as slurry. Alternately, powder and water may be mixed on the block surfaces. "On Block" mixing is generally limited to billet or flat shape fabricating.

The volume mix ratio for bore coating is approximately 1.5/1 (powder/water). The volume mix ratio HT reinforced coating is approximately 2.5/1 (powder/water).

For slurry application, add powder to water and mix until desired consistency. Use immediately. Cold water delay set, hot water will accelerate set.

For "On block" mixing, apply water to both substrate surfaces. Sprinkle powder on one block 0.7 kg to 1.0 kg per 457 mm x 610 mm block and mate wet surface. Rub blocks back and forth with

a rotary motion until powder is wetted and spread uniformly.

Ones adhesive sets, it cannot be recovered.

### BORE COAT APPLICATION:

Check CAT11 insulation for fit and clearance to allow for pipe expansion and bore coat. Hot work should be loose fitting. Apply to bore with brush or other suitable applicator. Cells should not be filled and a continuous coating is not needed. A salt and pepper appearance is sufficient. Remove any lumps or excess adhesive from all surfaces before adhesive sets.

### PHYSICAL PROPERTIES:

#### Typical Values:

**Colour:** White

**Appearance:** Dry fine powder

**Density, g/cm<sup>3</sup>:** 2.7 to 3.0

**Melting Point:** 1450°C

**Application Temp:** 4°C - 38°C

**Set Time, 25°C, mins:** 18 - 30

**Service Temp.:** -268°C to 482°C

**Water Vapour Transmission:** Not Available

**pH:** Alkaline

**Combustibility:** Incombustible wet or dry.



### **TOOLS AND EQUIPMENT:**

Hand mixing is usually sufficient. A plastic coated straight mixing paddle is recommended. Containers and tools should be plastics. Brushes should be disposable bristle type.

### **SURFACE PREPARATION:**

Check substrate surfaces for flatness, adhesive cannot make up for poor surface uniformity. CAT 11 insulation should be free of loose dust. Lay out work before mixing adhesive.

### **JOINT FABRICATION:**

Apply by brush or other suitable applicator. Application to both faces is necessary for the required adhesive. Remove any excess adhesive before it sets. Provide any needed support and

don't move piece until adhesive sets. Assembled pieces can be cut within 1 hour, but may be wet. Adhesive sets by chemical reaction, not by drying.

### **CLEAN UP AND DISPOSAL:**

Adhesive will set under water. Do not wash or discard into sewer.

Clean up with water before adhesive hardens. Set adhesive must be mechanically removed.

Set adhesive can be land filled. Powder should be mixed with water before discarding to land fill.

### **STORAGE:**

To achieve maximum shelf life, store unopened containers in a dry area.

### **PACKAGING:**

50 KG HDPE bags with inner polyethylene line.



## **CAPRISEAL-219 FIRE STOP PUTTY**

### **DESCRIPTION**

Capriseal - 219 fire stop putty is a tough, non-hardening flexible elastomeric sealant designed to stop the spread of smoke and fire along services that passes through walls and floors. It is suitable for following service penetrations, single or bunch of cables, non-combustible pipes, blank openings etc.

Capriseal-219 can withstand a temperature of 800°C for two hours.

Capriseal-219 does not contain asbestos, lead and mercury.

### **TECHNICAL DATA**

**Colour:**

Dark Grey

**Consistency:**

Moldable putty

**Specific Gravity:**

1.6 to 1.7

**Average non-volatile:**

100% by weight

**VOC:**

Nil

**Curing time:**

Non drying

**Application temperature:**

5° c to 45°c

**Flammability:**

Fire retardant

### **APPLICATION**

Surface of the cables, pipes and openings should be cleaned for proper adhesion. It can be applied by putty knife or trowel. This putty can also be hand worked to conform to the penetration requirement. It is important to make sure that the sealant contacts all surfaces to ensure adhesion. At least 25mm thickness is required for desired fire stop rating. This putty is reusable. Tools can be cleaned by M.T.O/White spirit.

Do not apply the material below 5°C

### **PACKING**

Capriseal -219 is normally formed into 5 kg blocks and 5 blocks in a case.

### **STORAGE**

Material should be stored between 4°C to 40°C in cool and dry place. When stored in a cool and dry place usable life is one year.



## **LOIDKOTE – 9** (FIRE RESISTIVE ANTI-ABRASION COATING)

**LOIDKOTE – 9** is a water based fire resistive anti-abrasive coating for the inner surface of cellular glass, polyurethane, rigid polyisocyanurate or urea-formaldehyde foam insulation to reduce abrasion from vibration and temperature changes of piping or vessels. Its strong adhesive qualities through a wide temperature range permit its use on extremely low temperature and dual temperature equipment. It is light in colour to facilitate application and ensure full coverage of the insulation surface.

Loidkote – 9 contains no asbestos, lead, mercury or mercury compounds.

### **TECHNICLE SPECIFICATION**

**Colour:**  
Off White

**Specific Gravity:**  
1.45 to 1.55

**Average Non Volatile:**  
69%  $\pm$ 2 by weight  
50%  $\pm$ 2 by volume

**Average Coverage:**  
1 to 1.25 sq meters per kg.  
0.4 mm wet film thickness/kg.

**Drying Time:**  
Set to Touch : 2 hours max.  
Dry Through: 4 hours max.  
Higher humidity or lower temperatures may retard drying.

**Service Temperature Limits:**  
- 95° C to 93° C

**Application:**  
Brush or pressurized spray

**Solvent For Clean Up:**  
Wet: warm soapy water  
Dry: mineral spirit

**Flammability:**  
Wet – Flash Point: more then 100°C  
Dry – Fire Resistive

### **SURFACE BURNING CHARACTERISTICS (ASTM E 84 15a) – dry material**

Flame Spread:	0
Smoke Developed:	120

**Storage & Handling:**  
Store and apply between 4°C to 38°C.  
Protect from freezing until dry.  
Stir well before use, do not dilute.

**Material Preparation:**  
Stir well.  
Do Not Thin,  
Apply only to clean, dry oil-free surfaces.  
Keep container closed when not in use to prevent surface skinning.

**Note:**  
The Properties and parameter closely resembles to Fos\*\*r 30-16.