

### PRODUCT DESCRIPTION

#### CHEMICAL DESCRIPTION

Single Component, Waterborne Acrylic Polymer with Silicon Microspheres

#### PRODUCT USAGE

Metaltec TC is a general-purpose liquid insulation, consisting of a complete mixture of various silicon and ceramic beads blended into a high quality acrylic polymer. Metaltec TC is designed to provide both thermal and acoustical insulation for a variety of industrial applications, providing an effective, inexpensive alternative to the high cost of typical insulation systems. Due to its excellent reflectivity and emissivity, Metaltherm™ excels at insulating structures and equipment from radiant energy gain. 99% of the radiant energy that comes in contact with Metaltec TC is either reflected or re-emitted, meaning only 1% of the radiant energy is absorbed. Metaltec TC also performs very well at protecting personnel from burn hazards on hot or cold structures or equipment. Because it physically adheres to the surface, Metaltec TC significantly reduces corrosion and rust formation. Metaltec TC is extremely lightweight and pliable, therefore, it expands and contracts with the surface to which it is applied. The use of Metaltec TC is effective at providing insulation while at the same time eliminating corrosion under insulation (CUI).

#### COLORS

Standard color is white. Special colors available upon request.

#### PRODUCT CERTIFICATIONS

Passes ASTM C1055-99 standard for protection from burn injuries.

### PRODUCT ADVANTAGES

- Excellent radiant reflectivity and emissivity properties – significantly reduces radiant energy gain
- Low thermal conductivity – good conductive insulation properties
- Very good burn safety characteristics – excellent for personnel protection
- Light weight – less weight than other insulations
- Good adhesion – bonds well to a variety of substrates
- Moisture resistant – helps to prevent corrosion and rust formation
- Easy application/installation – installs in much less time than other insulations
- Eliminates CUI
- Reduces or eliminates condensation

### TYPICAL APPLICATIONS

- Pipe and Valve Insulation
- Tank Insulation
- Roof Coating
- Interior and Exterior Wall Insulation
- Interior and Exterior Ducting

### SURFACE PREPARATION

Preparation requirements vary. Contact your distributor

#### COATING SYSTEMS

##### PRIMERS

Steel : properly primed steel  
Non-Ferrous Metals and Galvanized Steel : self-priming  
Concrete : self-priming  
Wood : self-priming

##### TOPCOATS

Compatible Acrylic Systems

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### TECHNICAL DATA

#### SOLID VOLUME

86.5%

#### RECOMMENDED DFT (DRY FILM THICKNESS)

0.4 - 7 mm; 0.4 to 0.8 mm per coat, multiple coats required to obtain greater thickness. Thickness varies with application. Please consult your technical representative for assistance.

#### DRY TIME (50% R.H.)

Temperature	Dry to Touch	Recoat Time	To Normal Use
24°C	180 min.	10 hrs.	20 hrs.

#### THEORETICAL COVERAGE

Spray Application : 1.475 m<sup>2</sup>/liter @ 0.4 mm

#### NET WEIGHT PER LITER

Wet : 0.67 k/l Dry : 0.38 k/l

#### STORAGE TEMPERATURE

Min 5°C, Maximum 25°C. Cool storage is recommended

#### SHELF LIFE

12 months at recommended storage temperatures.

#### HEALTH AND SAFETY

Materials are safe for handling. Consult Material Safety data Sheet for descriptive handling and safety information.

#### PHYSICAL PROPERTIES

Cross Hatch Adhesion- (ASTM 3359)	100% passed, no failure
Flame Spread (ASTM E84-98)	25
Smoke Developed (ASTM E84-98)	45
Accelerated Aging (ASTM G53) no primer	No discoloration at 200 hours
Brookfield Viscosity, #3 spindle, 30 rpm	3564 centipoise
Specific Heat (23°C)	1.1120 W-s/gm-K
Thermal Diffusivity (23°C)	0.00239 cm <sup>2</sup> /sec
Thermal Conductivity (23°C)	0.000079 W/cm-K 0.0563 Btu/hr-ft-°F
Solar Reflectance (ASTM E903)	83
Emittance (ASTM E408-71)	94
Service Temperature	Continuous : -40 / + 260°C Maximum Surge : 300°C

### APPLICATION

#### MIXING

Power mix contents of container using a mud paddle at 300 rpm or less for 3-5 minutes, making sure to blend in all solids on top of container.

#### SURFACE TEMPERATURE

Minimum 15°C, Maximum 200°C. Coating will not dry below 15°C. Prior to applying to substrates at temperatures greater than 66°C, please contact distributor for assistance.

#### METHODS & EQUIPMENT

Apply Metaltec TC on a dry, clean substrate free from oil, grease, wax, dirt, rust or corrosion. Use airless sprayer with 205 Atm, 4.75 L/min, 28:1 ratio with a 0.53 mm tip size. A Spray Gun using shop air may be used for small applications. Allow product to completely dry between coats. This is a one-coat system with dry time of 12 hours under room temperature conditions. Elevating temperature of substrate will accelerate recoat time. Brush may be used for touch up, but it is not recommended for full application, except for under 50 m<sup>2</sup>.

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