FEDERAL INDUSTRIAL LININGS

Tel: +27 11 955 2555

10 Federal Industrial Park
138 Main Reef Road
Manufacta, Roodepoort
JHB, South Africa

Reg. No: 2009/183722/23
VAT No: 4100254848

www.federalindustrial.co.za

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TECHNICAL DATA SHEET

FEDHEAT - 250

DESCRIPTION

FedHeat 250 is a single component self-priming silicon co-polymer resin coating that produces a heat and corrosion resistant coating on carbon steel and stainless steel. It can be applied directly to hot substrates up to 250°C.
It is heat resistant up to 250ºC in oxidation / atmospheric environments and 280°C in vacuum / inert environments.

PRINCIPLE USES

FedHeat 250 offers the ultimate protection on exteriors of high temperature components including Boilers and Stacks, Process Plant & Equipment, Heat exchangers, Compressors & Turbines, Piping, Pumps & Manifolds. It is especially designed to be applied directly to hot substrates resulting in little to no down time for plant maintenance. It is also suitable to be used under insulation and has very good chemical & UV resistance.

PERFORMANCE DATA

Description	Results
Colour	Black
Max Service Temp	250°C in oxidation environment / 280°C in vacuum
Flash Point	60°C
Touch Dry (Hours) @ 100°C	30 minutes
Over Coating Time @ 100°C	30 - 60 minutes
Over Coating Time @ 50°C	2 - 6 hrs
Over Coating Time @ 25°C	8 - 18 hrs
Kit Size	5lt
Volume Solids by Volume	60% (+-2)
Coverage (m²)	10m² p/lt @ 50µm DFT per coat- depends on surface profile
Indicated WFT / DFT	85µm / 50µm per coat – 2 to 3 coats recommended
Application Temperature	Min 10°C / Max 250°C
Shelf Life	18 months

ADVANTAGES

- Easily applied by brush or roller (ambient temps only), conventional spray or airless spray
- Short curing times
- Excellent resistance to corrosion at high atmospheric temperatures
- Can be used for corrosion protection under insulation
- Single component product – easy to work with
- Adhesion promoted – can be used on most metal substrates
- Good colour stability

SURFACE PREPARATION

Mechanical preparation of the substrate is important before application of **FedHeat 250.** The substrate should be structurally sound and free of oil, dust and debris, grease, paint, corrosion deposits, laitance or other surface deposits. Metal surfaces should be prepared by cleaning to a minimum standard of Sa2 (ISO8501-1) or St3 cleaning with a profile of +-40µm if grit or sandblasting is not possible.

MIXING

Mix using a mixer with a mixing paddle at medium speed for 2-3 minutes until product is homogenous.
Ensure to rotate the mixer inside the container and into the corners of the container.
Do not add more than 5% styrene for thinning – thin only if necessary.

APPLICATION

Apply **FedHeat 250** to the recommended thickness (85µm WFT / 50µm DFT per coat) using brush & roller (ambient temps only) an airless sprayer, or conventional spray to a cleaned and prepared surface. 2 to 3 coats are recommended. A written specification always supersedes any application guideline. Do not exceed 120µm WFT per coat.
Should the over coating time be exceeded roughen the surface & wash the coating off with high pressure fresh water to remove any surface salts prior to over coating. Spray perpendicular (90°) to hot surfaces. Spray thinner than normal coats with each subsequent pass of the spray gun to facilitate heat generated escape of solvents. Do not use spray tips larger than 0.036" (0.8mm) when spraying onto hot surfaces above 120ºC.

NB: PROCEDURES FOR APPLICATION TO HOT SURFACES

- All hot applications must be sprayed only
- Hand application should only be done at ambient temperatures
- Flush equipment well with Styrene only prior to application
- If thinning is necessary only use a max of 5% Styrene (No other thinner is allowed)
- Thinning is not normally necessary
- Application equipment may be cleaned with Styrene or Acetone (non-combustible areas only) after application
- For conventional spray, use adequate pressure to achieve proper atomization
- **WARNING! Do not use any other thinners to avoid creating a fire hazard**
- **Spray nozzles should be earthed to avoid static build up in areas where combustible fumes may be present**

FACTORS TO TAKE INTO CONSIDERATION

The procedures for applying protective coatings to hot surfaces are different from those normally used when applying protective coatings at ambient temperatures.

- Avoid dry spray by holding the spray nozzle perpendicular to the hot surface.
- Perpendicular spraying will minimize overspray.
- Apply a subsequently thinner coat than a normal paint film with each pass of the spray gun. This will allow evaporation of the solvents without heat-generated blisters or pinholes.
- For temperatures above 120ºC reduce the nozzle size to 0.8mm(or 0.036")

CLEANING

Clean hands and skin immediately after use with industrial hand cleaner.
Clean tools and equipment immediately after use with Styrene or Acetone.

LIMITATIONS

- Application temperatures between 10°C and 250°C.
- Avoid excessive application.
- Avoid contact with skin.
- Do not release into sewer or surface water.

STORAGE AND STABILITY

FedHeat 250 has a shelf life of 18 months when stored in unopened containers in a cool, dry place. Failure to do so will result in a reduction of shelf life.

SAFETY AND HANDLING

FedHeat 250 contains chemicals. Use only with adequate ventilation. Avoid breathing of vapours and prolonged or repeated skin contact. Protective clothing and gloves should be worn when handling this product.
All sources of ignition should be removed. If exposed, eyes should be well flushed with water for 15 minutes and medical attention must be sought instantly.

This product is for professional use only. The applicators and operators must be trained, experienced and have the ability and equipment to apply the coatings correctly and according to specification. Applicators and operators must use the appropriate PPE when using this product. The safety procedures applicable to the handling of chemical materials should be read, understood and rigidly adhered to.

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