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TECHNICAL DATA SHEET

FEDHEAT - XHT

DESCRIPTION

FedHeat XHT is a single component zirconium oxide coating that produces a hard, oxidation resistant coating on carbon and stainless steel and a range of refractory metals including molybdenum, platinum, rhodium, and titanium. It is heat resistant up to 1800°C in oxidation / atmospheric environments and 2000°C in vacuum / inert environments. **FedHeat XHT** offers the ultimate protection of extreme high temperature components used in the processing of ceramics, glass, metals, and plastics.

PRINCIPLE USES

FedHeat XHT is intended as a coating for steel & metal structures where extreme heat causes metals to become brittle & retention of tensile strength and physical properties is difficult or challenging. It is also intended for sealing porous refractories and protecting resistance heating elements from oxidation and residue build up that causes arcing and leads to reduced element life.

PERFORMANCE DATA

Description

Results

Colour	Off White only
Max Service Temp	1800°C in oxidation environment / 2000°C in vacuum
Specific Gravity (g/ml)	2.02
Touch Dry (Hours) @ 25°C	3 hrs
Over Coating Time @ 25°C	8 - 24 hrs
Full Cure @ 25°C	24 hrs
Full Cure @ 100°C	6 hrs
Kit Size	3.8lt
Volume Solids by Weight / Volume	60% (+-2) / 30% (+-2)
Theoretical Coverage (m ²)	10m ² p/lt @ 30µm DFT Depends on wastage & surface profile
Indicated WFT / DFT	90µm / 30µm
Application Temperature	Min 10°C / Max 40°C
Shelf Life	6 months

ADVANTAGES

- Easily applied by hand, conventional spray or airless spray
- Short curing times
- Excellent resistance to extremely high atmospheric temperatures
- Single component product – easy to work with
- Adhesion promoted – can be used on most metal substrates

SURFACE PREPARATION

Mechanical preparation of the substrate is important before application of **FedHeat XHT**. 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 St 3 cleaning (ISO 8501-1) 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. A maximum of 2% distilled water is advised for thinning - only if required.

APPLICATION

Apply **FedHeat XHT** to the recommended thickness (90µm WFT / 30µm DFT per coat) using an airless sprayer, conventional spray or by hand to a cleaned and prepared surface. A written specification always supersedes any application guideline. Do not exceed 200µm WFT per coat.

Apply subsequent coats within 8 to 24 hours after application if required. 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.

CLEANING

Clean hands and skin immediately after use with industrial hand cleaner.
Clean tools and equipment immediately after use with water or lacquer thinners.

LIMITATIONS

- Application temperatures between 10°C and 40°C.
- Avoid excessive application.
- Avoid contact with skin.
- Do not release into sewer or surface water.

STORAGE AND STABILITY

FedHeat XHT has a shelf life of 6 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 XHT 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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