3M™ Scotchkote™ Urethane Ceramic Lining **FG 514**

Data Sheet and Application Guide

Product Description

Scotchkote Urethane Ceramic Lining FG 514 has been specifically developed as a 100% solids polyceramic coating with a degree of flexibility for lining and resurfacing equipment operating in fluid flow environments.

Product Features

- Combines good application characteristics with good cavitation and erosion resistance.
- Designed for application by stiff brush or squeegee.
- Provides outstanding protection against impingement.
- Primarily designed for use on propellers, kort nozzles, guide vanes, turbines etc.

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast clean steel surfaces to NACE No. 2/SSPC-SP10 Near White Metal, ISO 8501:1, Grade SA2½.
3. Apply Scotchkote Urethane Ceramic Lining FG 514 to the required thickness.
4. Allow to cure.
5. Visually or electrically inspect the coating for defects.
6. Repair all defects.

Properties

Property	Value
Colour	Grey
Ratio	3:1 By volume 3:1 By weight
Drying & Cure times at 20°C (68°F)	
Useable life	20 mins
Touch Dry	2 hours
Hard Dry	4 hours
Maximum Overcoating	24 hours
Full Cure	7 days
Volume Solids	100%
Specific Gravity	1.2 (Average Mixed)
Film Thickness (Typical)	Upto 1mm.
Coverage Rate	0.8m²/kilo at 1mm (8.6ft²/kilo at 20 mil)
Tensile Strength	20Mpa (2825 psi)
Dielectric Strength	> 20KV
Abrasion Resistance (ASTM D4060)	0.08 ml loss per 1000 cycles, 1kg load, CS17 wheel

Application Procedures for 3M™ Scotchkote™ Urethane Ceramic Lining FG 514

Surface Preparation

Steel surfaces should be abrasive blasted to NACE No. 2/ SSPC-SP10 Near White Metal, ISO 8501:1, Grade SA2½. A minimum blast profile of 75-100 microns should be achieved. Where blast cleaning cannot be carried out the surface should be mechanically abraded to remove all loose scale and produce a surface which is clean, dry and free from rust or dust.

When treating existing equipment which may have become salt impregnated due to service conditions, surfaces should first be wet blasted then dry blasted and tested for presence of salts. This process should be repeated until all salts are removed.

Product Mixing

Scotchkote Urethane Ceramic Lining FG 514 is a two component material comprising Part A and Part B components which must be mixed together prior to use.

Add all the contents of the Part B container into the Part A container and mix thoroughly, alternatively measure three volumes of Part A and one volume of Part B into a clean container and mix thoroughly.

The mixed material should be used within 20 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

Application Procedures

Scotchkote Urethane Ceramic Lining FG 514 should not be applied when the relative humidity exceeds 90% or when the surface to be coated is less than 3°C above the dew point.

The mixed product should be applied by stiff brush or squeegee and should be applied to give a uniform even thickness.

Ideally Scotchkote Urethane Ceramic Lining FG 514 should be applied in a single high build coat. If a second coat is required for any reason, overcoating must be carried out within 24 hours of application of the preceding coat. If the overcoating time is extended thorough mechanical abrading or flash blasting of the first coat should be carried out once the coating is hard dry.

Clean all equipment immediately after use with 3M™ Scotchkote™ Thinners PU71.

Packaging and Storage

Supplied in 1 kilo packs

Use within 2 years of date of manufacture. Store in original sealed containers at temperatures between 5°C and 30°C

Handling and Safety Precautions

Read all health hazard, precautionary and first aid statements found in the Material Safety Data Sheet, and/or product label prior to handling or use.

Ordering Information/Customer Service

For ordering, technical and product information or to request a copy of the Material Safety Data Sheet, call +44 (0)1609 780170 or fax +44 (0)1609 783762 (Sales) or 788718 (Technical).

For emergencies, please contact +44 (0)1344 858000.

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