Product Specification Sheet

DEP 206 Ceramic HTA Fluid

DEP 206 Ceramic HTA Fluid is designed to upgrade the performance of conventional materials of construction and in particular to protect equipment operating in contact with aqueous mineral acid solutions at elevated temperatures. The coating once fully cured is capable of withstanding temperatures up to 110°C in continuous immersion (these temperatures are dependent on operating environment – refer to DEP Technical Department for advice). The material can be applied directly to abrasive blasted steel or to surfaces previously rebuilt with DEP 101 EG-Metal or DEP 201 Ceramic Metal.

Typical applications

Suitable for the coating of sour oil and gas processing equipment, acid treatment vessels, scrubber units, extraction fans chimneys, etc.

Characteristics

Appearance

Base:	Grey Paste
Activator:	Amber liquid
Mixed:	Thixotropic liquid

Mixing Ratio

By weight:	18:1
By volume:	7:1

Density

Base:	2.56
Activator:	1.00
Mixed:	2.37

Volume Capacity

422cc/Kg

Solids content

100%

Sag Resistance

Nil at 1000 microns

Useable Life

10°C	50-60 minutes
20°C	30-40 minutes
30°C	15-20 minutes

Coverage

Where possible, the application should be carried out in two coats.

The first coat of material should be applied at a target thickness of 600 microns using a practical coverage rate of 0.6 sq metres/kg.

The second coat of material should be applied at a target thickness of 300 microns using a practical coverage rate of 1.2 sq metres/kg

If a two coat application is not practical, the product can be applied as in a single coat at 650-850 microns using a practical coverage rate of 0.45 sq metres /Kg.

Cure Times

At 20°C, the applied materials should be allowed to harden for at least 6 hours before movement. DEP 206 Ceramic HTA Fluid is designed for elevated temperature service and **in all situations** requires post cure. After an initial cure period of at least 24 hours at 20°C it should be post cured at between 60 °(for 24 hours) and 100°C (for 2 hours) . As an alternative, and where the service temperature will rise gradually, the material can be post cured in service after an initial cure period of at least 24 hours at 20°C. The initial cure period should be at least 48 hours at 10°C and 16 hours at 30°C.

Storage life

5 years if unopened and stored in normal dry conditions (15-30°C)

Mechanical Properties

Abrasion Resistance

Taber H10 Wheels/1 Kg load, wet

196mg loss/1000 cycles
0.083cc loss/1000 cycles

Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 75 micron profile

204kg/cm² 2895psi

Compressive strength

Tested to ASTM D 695

1045kg/ cm² 14,840psi

Corrosion Resistance

Tested to ASTM B117

Minimum 5000 hours

Flexural Strength

Tested to ASTM D790

544kg/cm² 7725psi

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Hardness

Shore D to ASTM D2240

20°C	89
100°C	85
150°C	74
180°C	70

Heat Distortion

Tested to ASTM D648 at 264psi fibre stress.

20°C Cure	45°C
100°C Cure	118°C
150°C Cure	148°C

Heat Resistance

Suitable for use in immersed conditions at temperatures up to 110°C and in dry service up to 170°C.

Chemical Resistance

The product resists attack by a wide variety of aqueous mineral acid solutions at elevated temperature and other media at lower temperatures. Refer to the DEP Technical Centre for advice.

Quality

All DE Polymers Limited products are manufactured under the scope of a fully documented quality system.

Warranty

DE Polymers Limited warrants that the performance of the product supplied will conform to the typical descriptions quoted within this specification provided material is stored correctly and used according to the procedures detailed in the Technical Data Sheet for the material.

Health and safety

Please ensure good practice is observed at all times during the mixing and application of this product. Protective gloves and other recommended personal protective equipment must be worn during the mixing and application of this product. Before mixing and applying the material please ensure you have read and fully understood the detailed Material Safety Data Sheet

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