

Product Specification



PES 202 Ceramic Repair Fluid

PES 202 Ceramic Repair Fluid is an erosion-corrosion resistant coating for use principally in fluid flow situations. The material can be applied directly to abrasive blasted steel or to surfaces previously rebuilt with PES 101 Power Metal Paste or PES 201 Ceramic Repair Paste.

Typical applications

Suitable for the coating of equipment such as impellers, pump casings, valves, heat exchanger end plates, water boxes, separator housings, pipes, propellers, kort nozzles and rudders.

Characteristics

Appearance

Base: Dark Grey, light grey, blue Paste
Activator: Amber liquid
Mixed: Thixotropic dark grey, light grey or blue liquid

Mixing Ratio

By weight: 8:1
By volume: 3:1

Density

Base: 2.65
Activator: 1.0
Mixed: 2.24

Volume Capacity

28.4cu.in. (446cc/Kg)

Solids content

100%

Sag Resistance

Nil at 16mils.

(400 microns)

Useable Life

50°F 45-60 minutes
68°F 20-30 minutes
86°F 15-20 minutes

Coverage

Application should be carried out in two coats. To achieve the correct film thickness of 10mils. (250 microns) per coat at practical coverage rate of 15 sq.ft.per kg. (1.4 sq. m/kg) should be aimed for.

Cure Times

At 68°F the applied materials should be allowed to harden for the times indicated below before being subjected to the conditions indicated. These times will be extended at lower temperatures and reduced at higher temperatures:
Movement without load or immersion 3 hours
Light loading 6 hours
Full loading 1.5 days
Immersion 2 days

Storage life

5 years if unopened and stored in normal dry conditions (59-86°F)

Mechanical Properties

Abrasion Resistance

Taber CS17 Wheels/1 Kg load
145mg loss/1000 cycles
0.065cc loss/1000 cycles

Adhesion

Tensile Shear to ASTM D1002 on abrasive blasted mild steel with 3mil. angular profile
2875psi (202kg/cm²)

Compressive strength

Tested to ASTM D 695
13,650psi (960kg/cm²)

Corrosion Resistance

Tested to ASTM B117
Minimum 5000 hours

Flexural Strength

Tested to ASTM D790
9000psi (635kg/cm²)

Hardness

Rockwell R to ASTM ASTM D785
100

Heat Distortion

Tested to ASTM D648 at 264psi fiber stress.
68°F Cure 118.40°F
212°F Cure 203°F

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Heat Resistance

Suitable for use in immersed conditions at temperatures up to 158°F. Resistant to dry heat up to 392°F dependent on load.

Chemical Resistance

The product resists attack by a wide variety of inorganic acids, alkalis, salts and organic media.

Quality

All PES Products are supplied under the scope of the manufacturers fully documented quality system.

Warranty

PES 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.

Legal Notice: The data contained within this Product Specification is furnished for information only and is believed to be reliable at the time of issue. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the responsibility of the customer to determine the products suitability for use. PES accepts no liability arising out of the use of this information or the product described herein.