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# TECHNICAL DATA SHEET

# CERAMI-FLEX F.G.

Two Component Polyurethane Resurfacing Compound

THORTEX TECHNOLOGY WORLDWIDE VOC FREE

**Thortex Cerami-Flex F.G.** is a high performance solvent free flexible polyceramic repair coating designed for the resurfacing of equipment operating in fluid flow environments.

**Thortex Cerami-Flex F.G.** is based on a complex blend of high molecular weight and urethane polymers blended with inert pigments and silicas reacted with an amine accelerated isocyanate resin which produces a system with the optimum physical and mechanical strength.

**Thortex Cerami-Flex F.G.** offers a resilient high performance system with outstanding protection against impingement, entrainment, cavitation and erosion corrosion and is ideal for resurfacing, propellers, kort nozzles, guide vanes and tube sheets etc.

**Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.**

## SURFACE PREPARATION

All dirt, and contamination should be removed, then surfaces should be degreased using **Thortex Universal Cleaner.** Surfaces should now be abrasive blasted to Sa2½ BS7079: PART A1 1989, or equivalent with a medium to coarse profile.

Equipment which has become salt impregnated due to service conditions should, first be wet blasted then dry abrasive blasted and checked for presence of salts. This process should be repeated until the salts are removed.

Alternatively, surfaces should be warmed with a blow torch or heat gun to bring salts up to the surface. The surface should once again be blast cleaned. This process must be repeated until no further sweating of impregnated salts is evident.

All residual abrasive dust should be blown clear of the prepared surface. Surfaces which are not required to bond to the **Thortex Cerami-Flex** should be treated with **Thortex Release Agent.**

## MIXING

**Thortex Cerami-Flex F.G.** is a two component solvent free material comprising base and activator components which must be mixed together prior to use.

Add all the contents of the activator container into the base container and mix thoroughly to produce a streak free material. Alternatively measure three volumes of base component and one volume of activator component into a clean container and mix until completely strek free.

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

Application should be carried out as soon as possible after the surface preparation is complete, and certainly within 4 hours otherwise flash blasting will be necessary before application.

The mixed material should be applied by brush to provide an even smooth coating to the prepared/filled surface.

Where **Thortex Cerami-Flex F.G.** is being applied over **Thortex Cerami-Flex E.G.** a maximum of 4 hours should be allowed between applications, however when two coats of Thortex Cerami-Flex FG are being applied the maximum overcoating time is 24 hours.

All equipment must be cleaned IMMEDIATELY after use with **Thortex Universal Cleaner.**

**Theoretical Coverage Rate**
0.8 m² / kilo at 1 mm (8.6 ft² / kilo at 20 mil)

**Note**: For immersiom service conditions two coats to achieve a minimum total thickness of 750 microns are recommended.

Detailed working recommendations are available from the Technical Centre on request.

## PHYSICAL CONSTANTS

| | | | |
|---|---|---|---|
| **Mixing Ratio** | Base | Activator | |
| | 3 | 1 | By Volume |
| | 3 | 1 | By Weight |

| | | |
|---|---|---|
| **Appearance** | Base | Light Grey Thixotropic Liquid |
| | Activator | Brown Liquid |

**Drying & Cure times at 20°C (68°F)**

| | |
|---|---|
| Usable Life | 20 minutes |
| Touch Dry | 2 hours |
| Hard Dry | 4 hours |
| Full Cure | 7 days |

**Volume Solids** 100%

**V.O.C.** Nil

**Shelf Life** Use within 2 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

**Food Contact** Meets FDA Requirements CFR 21.175.300 for food contact.
Meets USDA requirements for incidental food contact.
Canadian Food Inspection Agency - Accepted product

## PHYSICAL PROPERTIES

| | |
|---|---|
| **Tensile Strength** ASTM D412 | 200 kg/cm² (2825 psi) |
| **Abrasion Resistance** ASTM D4060 | 0.08 ml loss per 1000 cycles 1 kg load CS 17 Wheel |
| **Corrosion Resistance** ASTM B117 | Unaffected after 5000 hours exposure |
| **Impact Resistance** ASTM D256 | 20 Joules (175 ins lbs) |
| **Flexibility** ASTM D522-4 | 30% |

FOR FURTHER INFORMATION PLEASE CONTACT

## HEALTH AND SAFETY

As long as normal good practice is observed **Thortex Cerami-Flex F.G.** can be safely used.

Protective gloves should be worn during use.

A fully detailed **Material Safety Data Sheet** is either included with the material or is available on request.

## PACKAGING

Supplied in 1kg packs.

The information provided in this Product Data Sheet is intended as a general guide only and should not be used for specification purposes. The information is given in good faith but we assume no responsibility for the use made of the product or this information because this is outside the control of the company. Users should determine the suitability of the product for their own particular purposes by their own tests.

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