

PRODUCT DESCRIPTION

MAXIFLOOR® MFT 500 UV is a single component, high solids, UV curable, Epoxy acrylated coating that possesses excellent chemical resistance, surface hardness, flexibility and moisture resistance. The material is tack-free after exposure to UV light. A secondary moisture cure mechanism will cure unexposed areas of the coating within 2-3 days at ambient conditions. The coating fluoresces under UV light to allow for coating inspection and can be applied by selective coating equipment.

PRODUCT DATA

Density	: 1.10 ± 0.05 g/cm ³
Solids Content (%)	: 98 ± 2
Viscosity, per Fed-Std-141, Meth. 4287	: 10,000 ± 150 centipoise
Recommended Coating Thickness	: 25 - 125 microns
Recommended UV Cure*	: See curing section below
Shelf Life at Room Temperature, DOM	: 12 months
Thermal Shock, 50 cycles per MIL-I-46058C	: -65°C to 125°C
Glass Transition Temperature - DSC	: 45°C
Coefficient of Thermal Expansion – TMA	: 85 ppm/°C Below Tg 197 ppm/°C Above Tg
Modulus - DMA	: 10360 MPa @ -40°C 4280 MPa @ 25°C 66 MPa @ 80°C
Flammability, per UL-94	: V-0
Insulation Resistance, per MIL-I-46058C	: 8.0 x 10 ¹⁴ ohms (800TΩ)
Moisture Insulation Resistance, per MIL-I-46058C	: 4.7 x 10 ¹⁰ ohms (47GΩ)
Fungus Resistance, per ASTM G21	: Pass
Resistance to Chemicals	: Excellent

APPLICATION.

Conformal coatings can be successfully applied to substrates that have been cleaned prior to coating and also to substrates assembled with low residue, “no clean” assembly materials. Users should perform adequate testing to confirm compatibility between the conformal coating and their particular assembly materials, process conditions and cleanliness level. Please contact MAXIFLOOR® for additional information.

Scraper

MAXIFLOOR® MFT 500 UV can be applied via standard selective coating equipment or by conventional hand scraper to achieve the required thickness and smooth with water. Roller can be used by various techniques for body textured. Please contact your local MAXIFLOOR® Technical Dept. For details

Curing

MAXIFLOOR® MFT 500 UV is a highly cross linked coating. In order to achieve maximum cross linking density, the product must be exposed to the correct spectral output. MAXIFLOOR has modelled the performance of MFT 500 UV using Arc and Microwave based UV curing equipment. The table below outlines the required dosage and irradiance values necessary to render MAXIFLOOR® MFT 500 UV tack free post UV exposure with both equipment types. Minimum figures should provide a tack free surface. The maximum recommendation represents highest tested values by Humiseal. The cure recommendations may change as curing technology develops.

MAXIFLOOR® MFT 500 UV contains a reliable secondary moisture cure mechanism which will cure any shadow areas on the assembly within 7 days at ambient moisture.

Technical Data

MAXIFLOOR® MFT 500 UV was designed to be cured using a microwave UV oven equipped with an “H” style bulb. Arc systems can cure **MAXIFLOOR® MFT 500 UV** however care must be taken during the equipment selection process to ensure minimum dosage and irradiance values obtained will properly cure the coating. Because of the variations possible in curing equipment type and configuration, it is strongly recommended that you contact HumiSeal Technical Support to discuss your equipment and process in detail.

Clean Up

To flush equipment and clean uncured **MAXIFLOOR® MFT 500 UV**, non-alcohol based solvents should be used. **MAXIFLOOR® Thinner PU** is recommended

Rework

MAXIFLOOR® MFT 500 UV is a highly cross linked UV cured coating. The cured film has a high degree of environmental and chemical resistance and will be more difficult to remove than traditional conformal coatings. Thermal displacement, mechanical abrasion and, where available, **MAXIFLOOR® Stripper 1100** are suitable options for rework of **MAXIFLOOR® MFT 500 UV**.

STORAGE

MAXIFLOOR® MFT 500 UV is photosensitive. The product should not be exposed to direct sunlight or full spectrum fluorescent lighting. **MAXIFLOOR® MFT 500 UV** should be stored away from excessive heat, in tightly closed opaque containers at 0 to 25°C to ensure maximum shelf life is achieved. Prior to use, allow the product to equilibrate for 24 hours at room temperature. **MAXIFLOOR® MFT 500 UV** is a moisture curing material and care should be taken to protect process vessels and partial containers from moisture. Partial containers must be purged with a dry, inert gas such as dry air, nitrogen or argon before closure, otherwise premature polymerization by atmospheric moisture will occur.

CAUTION

Application of **MAXIFLOOR® Conformal Coatings** should be carried out in accordance with local and National Health and Safety regulations.

Use only in well-ventilated areas to avoid inhalation of vapours or spray. Avoid contact with skin and eyes. Consult

MSDS/SDS prior to use.

RECOMMENDED SYSTEMS

The following are examples only. System thickness depends on floor requirement.

- 1) 1 x **MAXIFLOOR® MFT 353 SL** 500 µm (D F T)
1 x **MAXIFLOOR® MFT 500 UV** 100 µm (D F T)
- 2) 1 x **MAXIFLOOR® MFP 323 SL** 500 µm (D F T)
1 x **MAXIFLOOR® MFT 500 UV** 100 µm (D F T)

HEALTH AND SAFETY

A health and safety data sheet is available for this product on request. Please observe the precautionary notices on the container. Apply under well-ventilated conditions. Do not breathe or inhale vapour. Avoid skin contact. Spillage on skin should immediately be removed with suitable cleaner, soap and water. Eyes should be well flushed with water and medical attention sought immediately.

CONTAMINATION

If the surface preparation system used has not removed deeply penetrating contamination such as oil, blasting the substrate with hot compressed air followed by an application of a sealing compound can be considered. Consult your local **MAXIFLOOR®** Technical Department for further information.

DISCLAIMER

The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we cannot guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.

Issued : January 2017