

RENUVO™ MPS

UV Curing Composite Technology

UV CURING MULTI-PURPOSE SYSTEM

- UV Curing resin system with dedicated RENUVO™ Lamp Technology
- Suitable for use at +5°C to +30°C (+41°F to +86°F)
- Compatible with current topcoat solutions
- Mono-component resin technology
- Thicknesses up to 3mm (0.12") for single cure operation
- Clean processing avoiding mixing and contamination
- GL Certification renewal pending
- User friendly 310ml (10.9floz) cartridge format

INTRODUCTION

RENUVO™ Multi-Purpose System (MPS), is a breakthrough UV curing resin system, developed by Gurit as a repair system for turbine blades. The system can be used either as a stand-alone spot repair or in combination with RENUVO™ Prepreg for a structural repair.

RENUVO™ MPS offers a step change in materials for the repair market. With working temperatures as low as +5°C (+41°F), MPS has demonstrated a practical solution to an engineering problem, how to perform repairs quickly at these temperatures. For this reason, the material has been formulated to give the operator the right material for both hot and cold environments.

The Mono-component RENUVO™ MPS resin eliminates the human error of mixing, dispensing and working with traditional 2 component repair systems. Additionally the material offers the operator the security that wherever the material has been sourced it is the same product manufactured to the same high exacting process.

Using a dedicated UV source, ideally RENUVO™ Lamp Technology, RENUVO™ MPS is cured in 90 seconds for a simple spot filler type repair, up to 3mm (0.12") thickness. Used in combination with RENUVO™ Prepreg the MPS product acts as the ideal primer to give the perfect air free bond surface.

PRODUCT INFORMATION

RENUVO™ MPS is available as part of the RENUVO™ product range. Please consult your local sales contact for further information. Full contact details can be found at www.gurit.com.

PROPERTY	UNCURED RENUVO™ MPS		TEST STANDARD
Density	1.2 g/cm ³	0.43 lb/in ³	-
Viscosity at 25°C / 77°F	40 Pa.s	400 P	EN 2329
Coverage at 2mm / 0.08" (1 x 310ml / 10.9floc cartridge)	1.4 m ²	15 ft ²	-
Coverage at 4mm / 0.16" (1 x 310ml / 10.9floc cartridge)	0.68 m ²	7.3 ft ²	-

MPS PROPERTIES

TRANSPORT & STORAGE

The RENUVO™ MPS cartridges and caps should be kept securely closed during transport and storage. Adequate long-term storage conditions will result in a shelf life of 18 months at 21°C (70°F).

STORAGE TEMP.	UNIT	VALUE
-18°C (0°F)	months	18
+21°C (+70°F)	months	18

Storage should be in a dry place out of direct sunlight, ambient light. It is recommended that cartridges are stored in their original box to protect the cartridges from ambient UV light.

HEALTH AND SAFETY

Please refer to product SDS for up to date information specific to this product.

MPS PROCESSING AND HANDLING

The product should be applied out of direct sunlight to extend the working time. Please refer to the RENUVO™ Blade Repair Solution process notes. Specific formulated product working practices apply to this product, details of which can be obtained from Gurit by the Technical Support department.

PROPERTY	RECOMMENDED HANDLING UV CURE SCHEDULE		TEST STANDARD
Recommended Handling Temperature	+5 to +30°C	+41 to +86°F	-
Maximum Relative Humidity	90 %		-
Cure Time @ 300mW/cm ²	90 seconds		-
Cure Height @ 300mW/cm ²	30 mm	1.18 in	-
Cured Laminate Colour (Gardner)	3 - 5		-
Dry Tg ₁ (DMA)	107°C	225°F	ASTM D7028

*please refer to the RENUVO LAMP datasheet for more information

CURED PROPERTIES

All data presented in this datasheet is based on the testing of a single batch of material, tested at room temperature (21°C / + 71°F)

PROPERTY*	RENUVO™ MPS		TEST STANDARD
Linear Shrinkage	1.7 %		ISO 3521
Shore D Hardness	88		ISO 7619
Tensile Strength	67 MPa	9.7 Ksi	ISO 527-2
Tensile Modulus	4.0 GPa	0.58 Msi	ISO 527-2
Tensile Strain	3.8 %		ISO 527-2
Flexural Strength	121 MPa	17.5 Ksi	ISO 14125
Flexural Modulus	3.8 GPa	0.55 Msi	ISO 14125

NOTICE

All advice, instruction or recommendation is given in good faith but the selling Gurit entity (the Company) only warrants that advice in writing is given with reasonable skill and care. No further duty or responsibility is accepted by the Company. All advice is given subject to the terms and conditions of sale (the Conditions) which are available on request from the Company or may be viewed at Gurit's Website: www.gurit.com/terms-and-conditions.aspx

The Company strongly recommends that Customers make test panels in the final process conditions and conduct appropriate testing of any goods or materials supplied by the Company prior to final use to ensure that they are suitable for the Customer's planned application. Such testing should include testing under conditions as close as possible to those to which the final component may be subjected. The Company specifically excludes any warranty of fitness for purpose of the goods other than as set out in writing by the Company. Due to the varied nature of end-use applications, the Company does, in particular, not warrant that the test panels in the final process conditions and/or the final component pass any fire standards.

The Company reserves the right to change specifications and prices without notice and Customers should satisfy themselves that information relied on by the Customer is that which is currently published by the Company on its website. Any queries may be addressed to the Technical Services Department.

Gurit is continuously reviewing and updating literature. Please ensure that you have the current version by contacting your sales contact and quoting the revision number in the bottom left-hand corner of this page.

TECHNICAL CONTACT INFORMATION

For all other enquiries such as technical queries:

Telephone + 44 1983 828000 (08:30 – 17:00 GMT)
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24-HOUR CHEMICAL EMERGENCY NUMBER

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