

**R2 151** is a controlled flow epoxy resin system designed for versatile temperature cure to manufacture automotive composite components requiring a high quality cosmetic finish.

**R2 151** provides a good tack and handleability over its 4-week outlife. It can be processed via hot-in-hot-out press cure and autoclave cure.

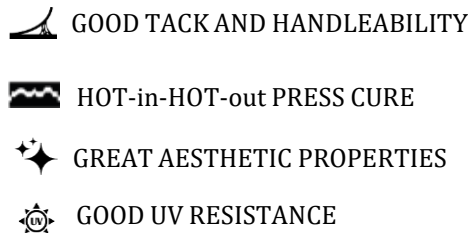
**R2 151** exhibits very good stability under UV and thermal exposure. With Microtex aesthetic fabrics, R2 151 offers excellent aesthetic appearance and surface finish.

**R2 151** is supplied on a range of lightweight surface plies and some heavier weight reinforcements.

#### TYPICAL APPLICATIONS



#### FEATURES



#### SHELF LIFE

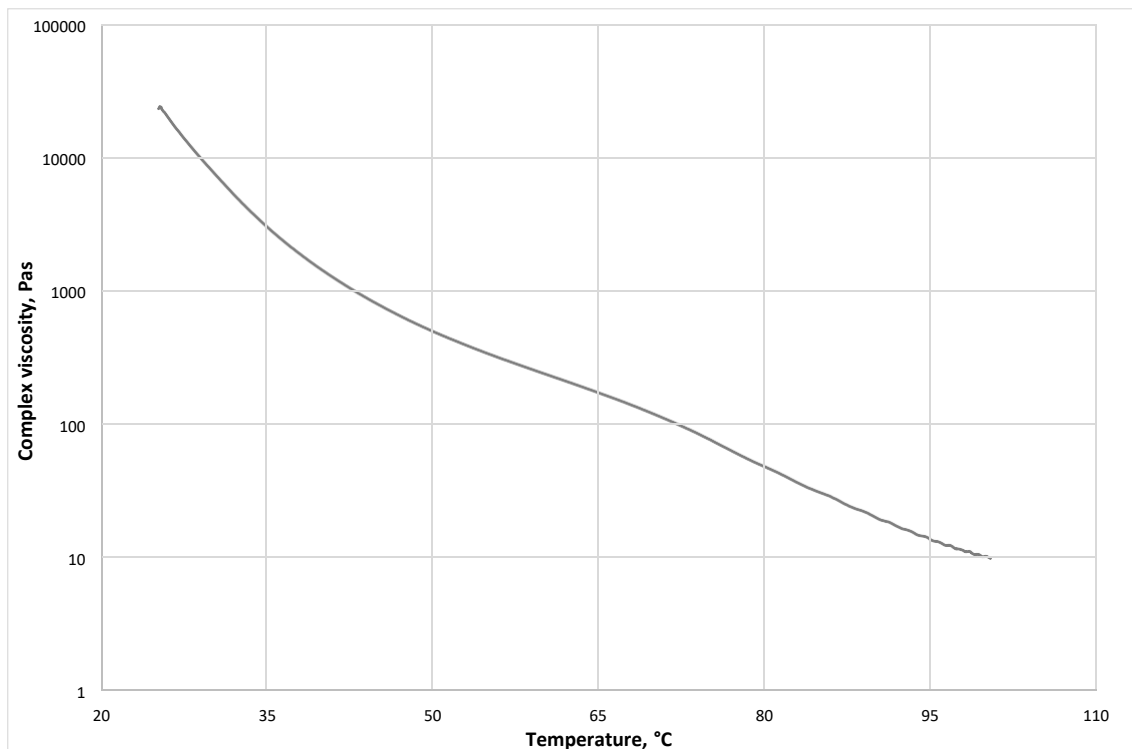


\* Where the intended end application is for a cosmetic product, customers are advised to consult a Microtex Composites sales representative for specific advice on fibre selection when placing an order for material.

NOTE: All technical information contained in this document are given in good faith and are based on tests believed to be reliable, but their accuracy and completeness are not guaranteed. They do not constitute an offer to any person and shall not be deemed to form the basis of any contract. Accordingly, the user shall determine the suitability of the products for their intended use prior to purchase and shall assume all risk and liability in connection therewith. The information contained herein is under constant review and liable to be modified. All products are sold subject to Microtex Composites Srl terms and conditions of sale. Copyright 2020 - Microtex Composites Srl. All rights reserved worldwide. All trademarks or registered trademarks are the property of their respective owners.

## MATRIX PROPERTIES

**Resin viscosity:** ramp rate = 2 °C/min,  $\nu = 10$  rad/sec.



## Recommended cure cycle

1. Apply full vacuum (min -0.85bar);
2. Apply autoclave pressure to 6 bar gradually;
3. Heat to 140°C  $\pm$  3°C at between 1°C /min and 2°C /min;
4. Hold for 13 minutes;
5. Cool to 60°C at between 1°C /min and 5°C /min;
6. Release pressure.

Above is the suggested standard cure cycle. For advice on bespoke cure cycles for specific components, please consult Microtex Composites technical service.

## MECHANICAL PROPERTIES

R2 151 - 13 min @ 140 °C, 6 bar

GG245T-42<sup>1</sup>

Property	Test Method	Value*
0° Interlaminar shear strength [MPa]	ASTM D2344	76

\* Test conditions: room temperature, dry .

## AGING TEST

Thermal aging 1	Thermal aging 2	SAE J2527
Pass	Pass	Pass

# All aging tests were run on 245gsm carbon fabric surface ply laminates without painting.

Thermal aging 1: in the oven 24h@140°C+ 2h@170°C

Thermal aging 2: in de-ionised water 24h@60°C

## AVAILABILITY

R2 151 series prepregs are available in a wide range of reinforcing fabrics, including carbon, aramid, glass and special fabrics.

## STORAGE CONDITIONS

This prepreg should be stored as received in a cool dry place or in a refrigerator.

After removal from refrigerated storage, prepreg should be allowed to reach room temperature before opening the polyethylene bag, thus preventing condensation (a full roll in its packaging can take more than 1 day).

## PRECAUTIONS FOR USE

The usual precautions when handling uncured resins and fibrous materials should be observed, and a Safety Data Sheet is available for this product.

SDS Reference Codes: R2 151: SIS-477

<sup>1</sup> Carbon fabric 245 gsm twill 3K, RC 42%.