



8020 SURFACE FILM

Sandable Surface Film For Use With 8020 Rapi-Ply Technology

8020 Surface Film is a grey filled epoxy film designed to enhance the surface finish of moulded laminates. The surface film produces a pin-hole free laminate with a stable sandable surface finish. Once lightly sanded the surface film provides an excellent key for painting.

CHARACTERISTICS:

- Flexible low to medium cure schedules 70°C (158°F) to 130°C (266°F)
- Easy to sand
- Outstanding vacuum-only processing capability
- Significant reduction in print-through
- Excellent surface finish
- Resin tack points to aid lay-up on vertical surfaces
- Tg 143°C (289°F) (DMTA – peak tan δ) after 30 minute cure at 120°C (248°F)
- 7 days useable out life 20°C (68°F)
- 12 months freezer storage life -18°C (0°F)

SURFACE FILM PROPERTIES	
Colour	Grey
Tg after 30 mins at 120°C (DMTA) Onset: Peak Tanδ:	121°C (250°F) 143°C (289°F)
Total Areal Weight (g/m ²)	700



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PRODUCT RANGE:

The 8020 Rapi-Ply range includes:

- 8020 Rapi-Ply - Structural system
- 8020 Rapi-Core - A low weight, low density core material
- 8020 Surface film - Modifies the properties of the laminate surface

All products including 8020 structural prepreg can be co-cured

Please refer to individual product data sheets for further detail.

PROCESSING

Following removal from the freezer, allow the Surface Film to reach room temperature before opening the polythene bag, to avoid moisture condensation. Typically, the thaw time for a box of material from storage at -18°C (0°F) will be 2 to 4 hours.

A single layer of surface film ply should be applied directly to the tool face. The product has been designed with tack points to allow the lay up of vertical surfaces and it is important to lay this side against the tool face. Once the mould surface has been covered with surface film it is advisable to insert dry glass tows at the front face to provide an air evacuation path into the breather. The glass tows should be inserted at approx 0.5m intervals.

Apply Rapi-Ply layers behind the surface film as required, refer to the Rapi-Ply datasheet for optimum bagging procedure.

8020 RECOMMENDED CURE TIMES

Cure temperature	Recommended cure time (hrs)
70°C (158°F)	12
80°C(176°F)	5.5
100°C (212°F)	2
120°C (248°F)	0.5



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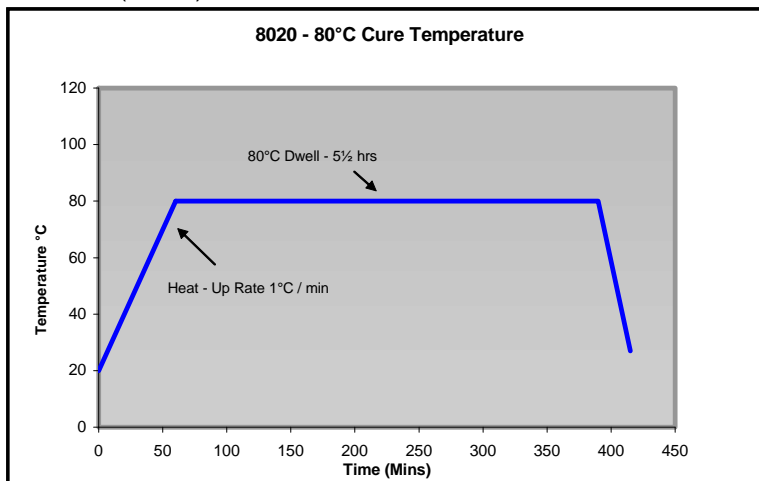
TYPICAL CURE PROFILES

80°C (176°F) Cure Temperature

Total Time: 6½ hours

1.0°C (1.8°F) / minute ramp to 80°C (176°F)

5½ hours dwell @ 80°C (176°F)



120°C Cure Temperature

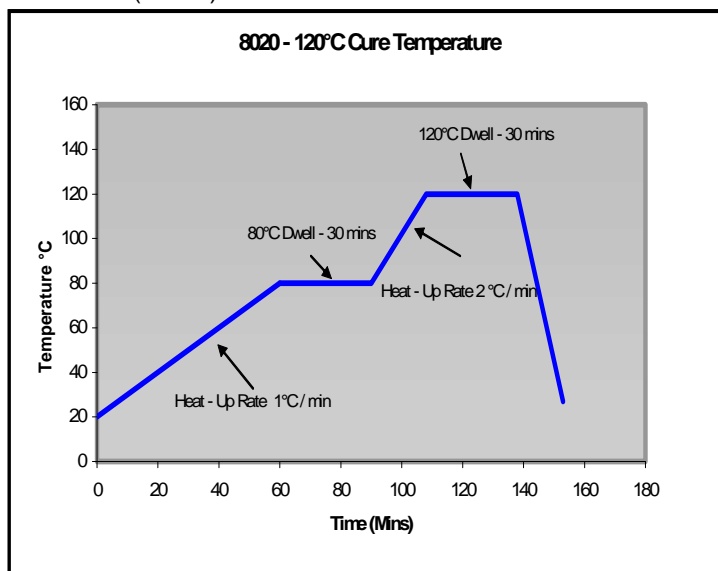
Total Time: 2 hours 20 minutes

1.0°C (1.8°F) / minute ramp to 80°C (176°F)

30 minute dwell @ 80°C (176°F)

2.0°C (3.6°F) / minute ramp to 120°C (248°F)

30 minute dwell @ 120°C (248°F)





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POST-CURE

In applications demanding maximum temperature or environmental resistance e.g. 120°C (248°F) service temperature, it is essential to develop the glass transition temperature to the maximum level by a suitable post-cure.

Ramp from initial cure temperature to 120°C (248°F) at 20°C (268°F) /hr and hold for 30 minutes minimum, this post-cure will result in a Tg of approximately 143°C (289°F).

Laminates may be post-cured unsupported unless the size, shape and laminate thickness would allow excessive distortion under self-weight.

STORAGE

Self-impregnation of the surface film will occur over a period of time at ambient temperature 20°C (68°F) and this can compromise its ability to generate high quality laminates as the air breathing properties decrease. Self-impregnation at ambient temperature 20°C (68°F) will occur in approximately 1 week.

Out-life of resin is 30 days ambient temperature 20°C (68°F).

Refrigerated storage life is 12 months at -18°C (0°F).

HANDLING SAFETY

8020 Surface Film contains epoxy resin, which can cause allergic reactions by skin contact. Avoid prolonged or repeated contact with skin – wear disposable nitrile gloves.

Wash the skin thoroughly with soap and water or resin removing cream after handling. Do not use solvents for cleaning skin.

Amber Composites Ltd produces a separate full Material Safety Data Sheet for this product. Please ensure that you have the correct MSDS's to hand for the materials you are using before commencing work.

FURTHER INFORMATION - PROCESSING DETAILS

Please contact Amber Composites for additional information.

This is not a specification. The information given in this data sheet in relation to the performance, storage and other characteristics of the product is based on results gained from experience and tests and is believed to be accurate. Given, however, that conditions of use and storage will vary, Amber Composites will not be liable for any loss or damage resulting from reliance upon such information. The purchaser is recommended to carry out his own tests to establish the suitability of the product for its particular purpose. The use of the product in certain processes may require third party consent.