



Description

HexPly[®] XF3 is a new range of epoxy surface film providing excellent surface finish and requiring minimum preparation for painting. It is suitable for automotive parts that require an excellent surface finish.

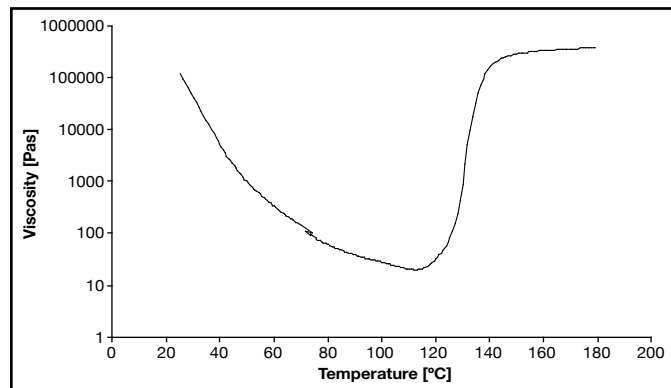
HexPly[®] XF3 is co-curable with a range of HexPly[®] prepregs that can cure at 120°C and 180°C. It is available in 300 gsm.

Benefits

- Easy to handle, good tack and drapability.
- Easy to sand.
- Can be co-cured with HexPly[®] M10R, M49, M47.
- Excellent resistance to aging tests (eg: +80/-40 °C cycles up to 80% relative humidity).

Properties of uncured film

Colour	grey
Weight of resin	300 g/m ² +/-20
Weight of carrier	12 g/m ²
Density	1.5
Cure ply thickness	0.2 mm
Gel time at 120°C	9.4 min
Gel time at 140°C	1.2 min
Minimum Viscosity	20 Pas at 112°C
T _g (DMA)	130 °C



How to use HexPly[®] XF3 Surface Film

1. Remove the HexPly[®] XF3 surface film from the storage freezer and allow it to warm up to room temperature before unpacking to prevent condensation.
2. Place the HexPly[®] XF3 on the surface of a mould that has been treated with release agent: the embossed side of the HexPly[®] XF3 film should be face down (in contact with the mould).
3. If needed, the film can be overlapped (10mm recommended) to give a continuous film over larger areas. But the number of overlaps should be kept to the minimum.
4. To improve the final result, remove air and ensure good contact with the mould we recommend covering the ply of HexPly[®] XF3 with release film and applying a vacuum bag at room temperature for 10 minutes.
5. Continue the lay-up with the chosen prepreg to complete the component and make up the final vacuum bag assembly for cure.
6. Cure the assembly in an autoclave according to the specific requirements of the prepreg. Optimum results are obtained with a heat up ramp of 2°C/min.
7. When the autoclave has cooled below 60°C, take out the mould and remove consumables along with the cured part.



Processing

Examples of co-curing cycles:

1. With HexPly® M10R or HexPly® M49 resin systems: Heat up ramp 2°C/min, 60 minutes at 120°C with 3 bars pressure
2. With HexPly® M47 resin systems: Heat up ramp 2°C/min, 90 min at 140°C with 7 bars pressure.

Properties of cured material

Surface appearance: smooth with no porosity. Primer can be used to reduce fabric print though of heavy reinforcement in order to achieve a perfect surface finish.

Environmental resistance: surface finish is maintained, especially in respect to fabric pattern print through after various aging cycles. For example, after more than one week at 40°C with 98% relative humidity.

Paint adhesion: Excellent adhesion according to EN ISO 2409.

Prepreg Storage Life

- Outlife and tack life at room temperature: 30 days
- Shelf life at -18°C : 12 months (*maximum, from date of manufacture*)

Storage

Prepreg should be stored as received in a freezer at -18°C. After removal from freezer, prepreg should be allowed to reach room temperature before opening the polyethylene bag, thus preventing condensation. (a full reel in its packing can take up to 24 hours)

Precautions for Use

The usual precautions when handling uncured synthetic resins and fine materials should be observed, and a safety data sheet is available for this product. The use of clean disposable inert gloves provides protection for the operator and avoids contamination of material and components.

For more information

Hexcel is a leading worldwide supplier of composite materials to aerospace and industrial markets. Our comprehensive range includes:

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|------------------------------------|--|---|
| ● HexTow® carbon fibers | ● HexFlow® RTM resins | ● Engineered core |
| ● HexForce® reinforcements | ● HexBond™ adhesives | ● Engineered products |
| ● HiMax® multiaxial reinforcements | ● HexTool® tooling materials | ● Polyspeed® laminates & pultruded profiles |
| ● HexPly® prepregs | ● HexWeb® honeycombs | ● HexAM® additive manufacturing |
| ● HexMC®-i molding compounds | ● Acousti-Cap® sound attenuating honeycomb | |

For U.S. quotes, orders and product information call toll-free 1-800-688-7734. For other worldwide sales office telephone numbers and a full address list, please go to:

<https://www.hexcel.com/contact>

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