



HexPly® M19.1/M19.6

80 – 160 °C curing epoxy matrix

Product Datasheet

Description

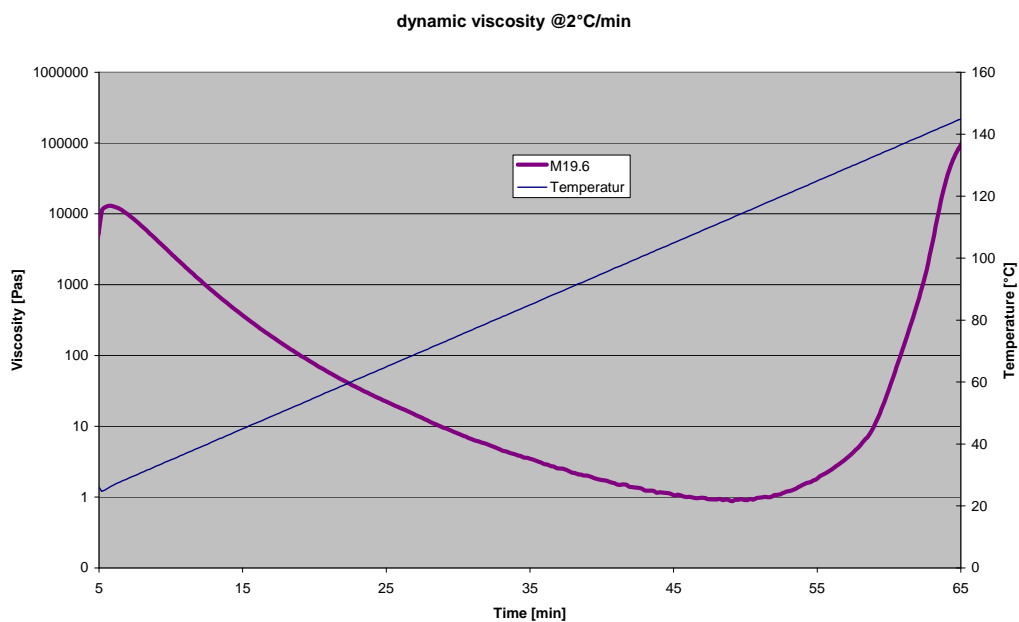
HexPly® M19.1/M19.6 is a formulated epoxy resin which is suitable for low pressure moulding processes. It is very versatile and allows a range of processing temperatures from 80 °C up to 160 °C. HexPly® M19.1/M19.6 can be used for very large industrial components subjected to severe environmental conditions. The HexPly® M19 range of prepregs are designed for Industrial applications where a greater control of adiabatic heat build up (exotherm) is required in order to reduce dwell phases during the cure cycle. HexPly® M19 overcomes this by providing a reduced exotherm matrix system which allows for higher temperature dwell phases to be used for a shorter length of time whilst at the same time limiting the maximum temperature observed during the exotherm. HexPly® M19.1/M19.6 has high fatigue resistance and gives a good surface finish. HexPly® M19.1/M19.6 exhibits a very long out life at room temperature.

Several variations are available including:

- HexPly® M19.6 for medium tack
- HexPly® M19.1 for high tack

Benefits and Features

- Very high flow matrix
- Excellent tack life
- Well adapted to low pressure processing
- Suitable for a range of pressures (0,5 to 5 bar)
- Versatile cure cycle 80 – 160 °C
- Good flexibility and handling of prepreg
- Suitable for thick laminates
- Good surface finish
- Low resin density
- Excellent fatigue resistance
- Translucent resin after curing
- Reduced exotherm





Cured Matrix Properties (cured at 120 °C)

		Method
Tensile strength	85 Mpa	ISO R527
Tensile modulus	3.2 Gpa	ISO R527
Strain	3.75 %	ISO R527
Flexural strength	136 Mpa	ISO 178
Flexural modulus	3.16 Gpa	ISO 178
Glass transition temperature	120 °C	DMA
Cured resin density	1.2 g/cm ³	

Curing Conditions

The ideal cure cycle is 60 min at 120 °C, at a pressure between 0.5 and 5 bar. Alternative cure cycles can be used:

Temperature	Time	Temperature	Time
80 °C	592 min	85 °C	398 min
90 °C	217 min	95 °C	159 min
100 °C	109 min	105 °C	87 min
110 °C	67 min	115 °C	61 min
120 °C	56 min	125 °C	47 min
130 °C	39 min	135 °C	32 min
140 °C	27 min	145 °C	25 min
150 °C	23 min	155 °C	21 min
160 °C	20 min		



Storage Life

▪ Out-life	@ + 23 °C	6 weeks
	@ + 5 °C	6 months
	@ - 18 °C	12 months

Precautions for Use

The usual precautions when handling uncured synthetic resins and fine fibrous 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.



Important

All information is believed to be accurate but is given without acceptance of liability. All users should make their own assessment of the suitability of any product for the purposes required. All sales are made subject to our standard terms of sale which include limitations on liability and other terms.

© Copyright Hexcel Corporation
E – M19.1/M19.6 – Nov 07

For More Information

Hexcel is a leading worldwide supplier of composite materials to aerospace and other demanding industries. Our comprehensive product range includes:

- Carbon Fibre
- RTM Materials
- Honeycomb Core
- Continuous Fibre Reinforced Thermoplastics
- Carbon, glass, aramid and hybrid prepregs
- Reinforced Fabrics
- Structural Film Adhesives
- Honeycomb Sandwich Panels
- Special Process Honeycombs

For US quotes, order 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:

<http://www.hexcel.com/contact/salesoffices>

