Proxxima™

Pultrusion

Enhancing speed and performance in pultrusion

Proxxima™ polyolefin thermoset resin systems

Higher performance with faster throughput

Fast cure and low viscosity enable pultrusion lines to run at higher rates and boost output, while improving part performance.

Pultrusion process in action with Proxxima™ resins

Faster throughput – up to 2x speed advantage

Low viscosity + snap cure enable fast fiber wet-out and cure.

Higher performance – up to 87%/wt fiber loading

Low viscosity enables higher fiber/filler loading for higher strength. It also enables thinner profiles with equivalent fiber loading for raw material savings.

Extreme durability

Exceptional toughness and fatigue life.

Excellent chemical resistance

Potential for extending product life, requiring less maintenance.

Hydrophobic

Low moisture uptake for corrosion resistance.

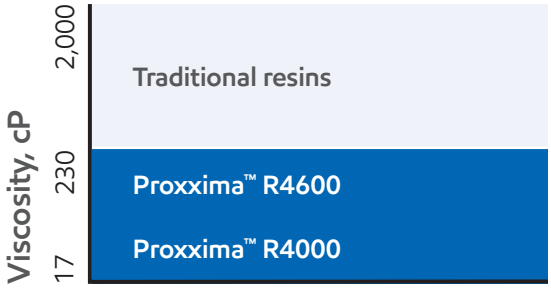
Proxxima™

Inherently low viscosity and tunable snap-cure catalyst for injection and bath-based systems

A range of viscosity and activity

Low viscosity

Enables fast fiber wet-outs and high fiber/filler loadings, driving lower costs and improved performance.

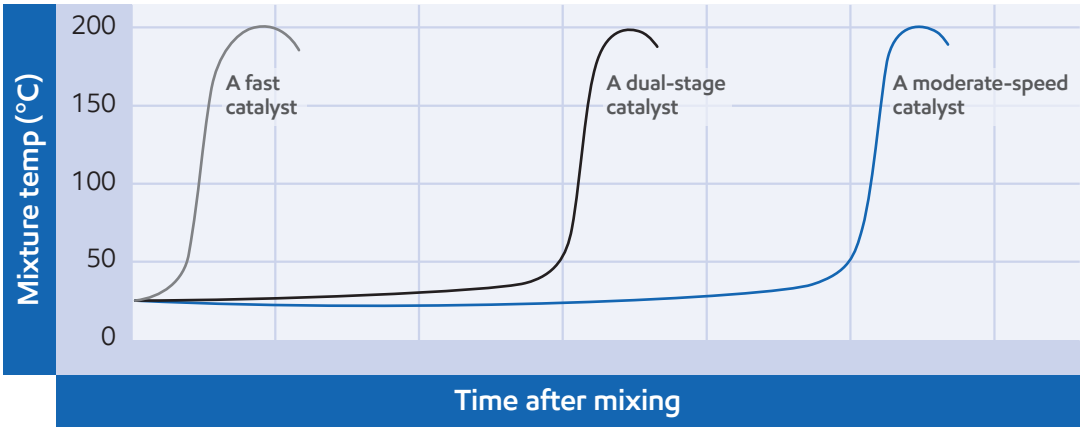


Process overview

Typical formulation mix
50:1 mix ratio
+ Internal mold release
Process temperatures
Gel zone: 100 – 110°C
Cure zone: 160 – 175°C

Tunable snap-cure

Drives fast process speeds with fit in injection and bath-based processes.



Composites performance highlight

Proxxima™ R4600 and C46 all-roving pultrusion, run at 1.3 m/min	
Fiber loading*	87 wt%
ILSS**	58 MPa
0° Flex strength**	1,280 MPa

**Calculated*
***ExxonMobil test methods*

Non-reinforced Proxxima™ resin properties

Proxxima™ materials	R4000 C42	R4600 C46
Tensile strength*** (MPa)	71	65
Tensile modulus*** (GPa)	2.4	2.6
Glass transition temperature (Tg)**** (°C)	126	140

**** ASTM D638*
***** ASTM E1356*

Contact us to discover how Proxxima™ resin systems can help you bring innovation to your business.

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