

Enable new opportunities in filament winding

Proxima™ polyolefin thermoset resin systems

Proxima systems drive innovation with less carbon fiber

Proxima resin systems deliver up to 21% higher burst pressures versus competing epoxy resins. This enables optimized carbon fiber utilization through tank redesign. Our late-stage development solution for wet winding offers lower cure temperatures and reduced post-cure times compared to standard epoxies—enhancing throughput and overall production efficiency.



Lower raw material costs

Higher burst pressure and reduced burst variation: allows for reduced carbon fiber use.



Increase production efficiency

Faster cure and lower exotherm: decreases processing time.



Chemical and water resistant

Maintains performance: in harsh environments with potential to extend product life.

Higher burst pressure: reduces carbon fiber, lowers weight

Hydrogen pressure vessel testing

H₂ Pressure vessel testing (700 bar)

- **No fatigue after 1000 cycles**
 - Cycling from 2 to 87.5 MPa
 - Test based on R134/EC79
- **Burst at 1602 bar** = 2.3x standard safety factor
 - Burst after pressure cycling
 - Dome failure (not caused by resin system)

Cured resin properties*

- **T_g = 141°C** (by DSC, 2hr cure at 120°C)
- **Density = 1.06 g/cm³**

Typical composite properties

- **Fiber loading, target = 70%wt / 60% vol**
- **Interlaminar shear strength = 61.5 MPa**
(ISO 14130, comparable resin & carbon fiber)

CNG pressure vessel testing at CST Optimum (250 bar operating pressure)



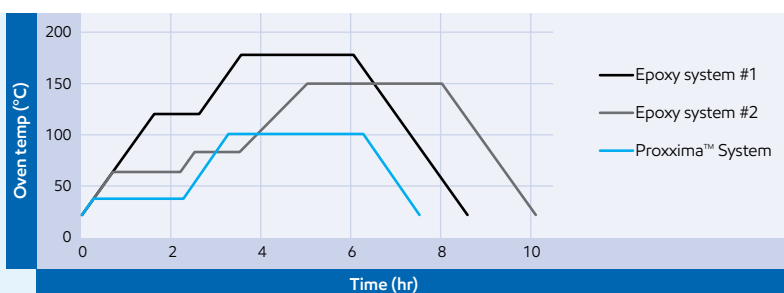
Resin	Burst pressure	Fiber translation	Coeff of variation	Safety factor
Proxima	1,110 bar	93.4%	1.6%	4.5
Epoxy	915 bar	77.0%	5.6%	3.7

Faster cure and lower exotherm: increases production efficiency

Proxima EXP-1893G C14 developmental system properties*:

Resin viscosity at 25°C = 500–600 cP | Potlife (time to double viscosity) at 30°C = 5 hrs

Faster cure potential with lower post-cure temperature



Could Proxima technology be a breakthrough solution for you?

*ExxonMobil test methods. Data is collected by or on behalf of ExxonMobil

©2026 ExxonMobil Product Solutions Company, a division of Exxon Mobil Corporation. PROXIMA and the X Logo are trademarks or registered trademarks of Exxon Mobil Corporation or one of its subsidiaries. Other trademarks shown are property of their respective owners. It is solely the user's responsibility for all determinations regarding use of the information and product. To the extent permitted by applicable law, all warranties and/or representations, express or implied, as to the accuracy or reliability of the information or products are disclaimed, and no liability of any kind whatsoever directly or indirectly arising out of or in connection with the use of, or reliance on, this document or any product referred to herein is accepted. The terms "we," "our" "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate or subsidiary either directly or indirectly stewarded.

2026_02_PRX_SS_FW_A4_EN_3