

## Description

ProInfusion Resin designed for production of composite structures by infusion methods and offered with a choice of four different hardeners, three for room temperature applications and one for high temp projects. This allows the selection of a pot life tailored to the size of the part being produced and extends the system's usable temperature range. Please see the ProInfusion tds for information on the room temperature systems.

## Applications

- System designed for infusion
- Uniform mix ratio allows easily blending hardeners for intermediate gel times

## Properties

- Low viscosity
- Readily wets out fabrics
- Good mechanical properties
- Suitable for marine applications

## Physical Properties

	PART A	PART B
Composition	ProInfusion Resin	High Temp Hardener
Mix Ratio by weight	100	27
Mix Ratio by volume	3	1
Aspect	Hazy Liquid	Transparent Liquid
Color	Colorless to Lt. Straw	Lt. Straw to Lt. Amber
Density at 77°F (lb/Gal)	9.4 - 9.7	7.9 - 8.1
Specific Gravity at 77°F (25°C)	1.13 - 1.16	0.94 - 0.97
Brookfield viscosity at 77°F (25°C) (cps)	800 - 1,200	100 - 150

## Mixed Physical Properties

	High Temp Hardener
Aspect	Transparent Liquid
Color	Lt. Straw to Lt. Amber
Density at 77°F (lb/Gal)	9.1 - 9.4
Specific Gravity at 77°F (25°C)	1.09 - 1.13
Brookfield viscosity at 77°F (25°C) (cps)	450 - 650
Pot life (150g) at 77°F (25°C) (minutes)	250 - 300

## PROCESSING

To obtain the desired temperature resistance and the optimal mechanical properties it is necessary to post cure the ProInfusion system. In order to avoid any distortion risks it is recommended to support the part on a frame before curing.

## Cured Physical Properties

	Method	Units	High Temp Hardener
Shore Hardness	ASTM D2240	Shore D	85
Glass Transition (Tg)	ASTM E1545	°F (°C)	286 (141)
Coefficient of Thermal Expansion (CTE) Range: 86-140°F (30-60°C)	ASTM E1545	10 <sup>-6</sup> °F <sup>-1</sup> (10 <sup>-6</sup> °C <sup>-1</sup> )	39 (70)
Tensile Strength	ASTM D638	psi	10,400
Tensile Modulus	ASTM D638	psi	227,000
% Elongation	ASTM D638	%	7
Flexural Strength	ASTM D790	psi	12,300
Flexural Modulus	ASTM D790	psi	383,000
Compressive Strength at Yield	ASTM D695	psi	15,800
Compressive Modulus	ASTM D695	psi	230,000
<b>Cure conditions of specimen: 24 hours at room temperature followed by 8 hours 140°F (60°C) and 8 hours 250°F (121°C)</b>			

## Storage Conditions

Shelf life of resin and hardeners are 12 months in original, unopened container stored in a dry 65-77°F (18-25°C) place. Repeated exposure to low temperatures during storage may cause the resin to crystallize. If this occurs, warm the resin to 120 - 140°F (49-60°C) and stir to dissolve the crystals. Any opened can must be tightly closed.

## Handling Precautions

**\*\*Please note: Do not allow excess mixed material to remain in bulk; pour into a thin sheet and allow to cure. Excessive amounts of mixed material in bulk has a potential of high exothermy and possible violent reactivity.**

Normal health and safety precautions should be observed when handling these products :

- Ensure good ventilation
- Wear gloves, and safety glasses

For further information, please consult the material safety data sheet.

## Guarantee

The information contained in this technical data sheet results from research and tests conducted in our laboratories under precise conditions. Seller cannot anticipate all conditions under which seller's products, or the products of other manufacturers in combination with seller's products, may be used. It is the responsibility of the user to determine the suitability of the Axson Technologies' products, under their own conditions, before commencing with the proposed application. In no event shall Axson Technologies, Inc. be liable for any direct, indirect, punitive, incidental, special, and/or consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of our products.