TECHNICAL DATA SHEET
EP9651 Clear

07/29/2015

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022
262-253-5900 FAX 262-253-5919

DESCRIPTION:

Resinlab® EP9651 Clear is a nonylphenol free reformulation of EP965 Clear. Nonylphenol was removed from this product to address global regulatory concerns regarding its role as an endocrine disruptor and its persistence in the environment. Endocrine disruptors have been implicated in neurological diseases, reproductive disorders, thyroid dysfunction, immune and metabolic disorders. It is classified as a Substance of Very High Concern in the EU and production is banned, in 2014 the EPA added nonylphenol to the TRI/Toxic Release Inventory program. While it's not a regulatory requirement at this time Resinlab is revising the chemistry in many of our nonylphenol containing products.

EP9651 Clear was designed for applications with small to medium sized castings and for bonding a variety of materials. It provides good wetting and adhesion to most surfaces and is free flowing to penetrate voids while releasing any trapped air. The product will cure at room temperature within 24 hours to a smooth, high gloss tough polymer with thermal shock and cycle resistance. Cure time can be accelerated by the application of heat after the product has gelled. EP9651 is resistant to water, acids, bases and most organic solvents. It maintains the same properties and performance of EP965 Clear.

EP9651 Clear is formulated at a 1:1 volume mix ratio for use in side-by-side dispensing cartridges and meter/mix equipment.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

Property:	*Value:*	*Test Method or Source:*
Color	Clear	Visual
Mix Ratio **By weight** **By volume**	Part A to Part B 1.16 to 1 1 to 1	
Cure Schedule	1 hour @65 °C or 20 minutes at 100 °C for small castings	
Viscosity – Part A **Viscosity – Part B** **Viscosity - Mixed**	14,600 cps @1/s 9,000 cps @1/s 13,800 cps @1/s	Rheometer parallel plate 25mm@1/s R050-49
Specific Gravity – Part A **Specific Gravity – Part B** **Specific Gravity - Mixed**	1.17 1.01 1.09	Calculated
Pot Life	10 minutes	WI R050-59
Gel Time	45 minutes	Sunshine Gel Timer
Glass Transition Temperature/Tg	53 °C	R050-61 by DSC
Hardness	85 Shore D	R050-17/ASTM D2240
Water Absorption	0.15% after 24 hours	R050-35/ASTM D570
Peak Exotherm	124.5 °C after 21 minutes for 40mL sample	Thermocouple
Tensile Properties: **Strength** **Elongation** **Modulus**	 10,000 psi 5% 390,000 psi	R050-36/ASTM D638
Lap Shear Strength **0.100" bond line Al to Al**	1,500 psi	R050-37/ASTM D1002
Compressive Properties: **Strength** **Modulus**	 24,000 psi 180,000 psi	R050-38/ASTM D695

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022
262-253-5900 FAX 262-253-5919

INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing. Cartridges should be stored in a vertical position to allow any air to accumulate at the tip. Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount.

2. If used in bulk, weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. If the product is used in a side-by-side cartridge, attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.

3. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.

4. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

SHELF LIFE AND STORAGE: 12 months at 25 °C
Specialty packaging may be less.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50 °C) aggravate this phenomenon. Heating the individual component to 50 to 60 °C while stirring can usually restore products to original state. Storage at 25 +/- 10 °C is optimum for most products.