

CNSL-BASED ADHESIVES GUIDE FORMULATIONS



1K EPOXY- POLYURETHANE HYBRIDS WITH NX-2026 AND NX-9212

- Improved adhesion strength
- Increased flexibility
- Biobased content
- Heat cured

BIO-BASED DIOL AND
NCO BLOCKING AGENT

1K HEAT CURE EPOXY-POLYURETHANE
HYBRID SYSTEMS

ASSEMBLY, TRANSPORTATION,
ELECTRICAL/ELECTRONICS

Guide Formulation

Ingredients	Formula 1 pbw	Formula 2 pbw
Epon 828 ²	100	80
NX-2026 ¹ blocked PU prepolymer (3% MDI functional NX-9212 ¹ based)		20
DICY ³ (DDA5)	8	6.4
Accelerator ³ (U-52M)	3	2.4
Fumed Silica ⁴ (HL-200)	5	5

¹ Cardolite ² Hexion ³ Huntsman ⁴ Hubei Huifu Nanomaterial Co., Ltd.

Typical Properties

Properties	Formula 1	Formula 2
Cure condition	120°C/1hr + 150°C/2hr	
Lap shear strength on sand blasted steel, MPa	30.7	34.1
Lap shear strength on sand blasted Aluminum, MPa	21.3	21.0
T-peel strength (N/mm) on sand blasted Aluminum	0.5	1.17
Glass transition temperature, °C	139	119

PROCESSING

All liquid components are blended together with a high shear mixer. Then any solid components are added separately and blended into the liquid after each addition. The product is generally degassed after mixing and before packaging. **Please refer to each supplier's material safety data sheet (MSDS) for the most current safety and handling information.**

DISCLAIMER

All statements, technical information and recommendations contained herein are based on tests Cardolite believes to be reliable, but the accuracy or completeness thereof is not guaranteed or warranted either express or implied including but not limited as to merchantability or fitness for a particular purpose. The formulations contained herein are not optimized for any particular use and are therefore, only to be considered as references. It is the responsibility of the user to fully test their formulations for the intended use. Use of the product is at the user's risk.



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