CNSL-BASED ADHESIVES GUIDE FORMULATIONS

2K PU ADHESIVE AND SEALANTS WITH NX-9203LP CNSL DIOL

- Excellent water resistance
- Outstanding hydrolytic stability
- Good bond strength and flexibility
- Low viscosity

BIO-BASED DIOLS

AMBIENT AND HEAT CURED, POLYURETHANE REACTIVE ADHESIVES

ASSEMBLY, BUILDING AND CONSTRUCTION, AUTOMOTIVE, LAMINATE BONDING

Ingredients/Parts by weight	Formula A	Formula B	Formula C
Part A			
PolyBD R45V[2]	100		50
NX-9203LP[1]		100	50
Voranol 260[3] (Polyether triol)	17.15	17.15	17.15
Filler (Calcium carbonate powder)	100	100	100
Epoxy silane (adhesion promoter)	1.086	1.086	1.086
Antifoam agent	0.1	0.1	0.1
Part B			
143LP[3] (modified MDI, 1.05 index)	43.3	61.9	52.6
Mixed viscosity (cps at 25°C)	18000	3200	7200

[1] Cardolite [2] Cray Valley [3] Dow Chemical

Properties (3 day cure at 40°C)	Formula A	Formula B	Formula C
Tensile strength (MPa)	3.5	4.0	7.0
Elongation at break (%)	42.5	14.7	77.2
Hardness (A)	92	97	93
Tg (°C)	-75	na	-77
Water absoption at 25°C (%) 7 Days/14 Days	0.78 1.05	0.30 0.36	0.17 0.19
Adhesion strength* (MPa) Aluminum PC PVC Nylon	 3.2 4.0 3.6 1.4	 3.5 0.4 0.3 0.1	 6.1 1.9 2.7 1.0

* Cohesion failure

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

Cardolite
Chemistry for Tomorrow

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