

## Starting Formulation

### SF 4030 Fast-Setting Clear Adhesive 828 3270 3253 Fast-Setting Clear Adhesive EPON™ Resin 828 / EPIKURE™ Curing Agent 3270 and 3253

**Introduction** This adhesive is a rapid curing, unfilled epoxy/amine adhesive possessing light color. Thin bond line sections will set to handling strength in approximately one hour at room temperature and will develop 1,000 psi tensile shear strength in approximately two hours. Practical cure rates are achieved at temperatures as low as 4 °C. A mild, non-offensive odor and nonfuming characteristics are other features.

- Suggested Uses**
- Tube adhesives
  - Transparent glass adhesives
  - Rapid repair kits
  - Medium set traffic button adhesives (unfilled modifications)

- Features**
- Rapid cure at ambient temperature
  - Cures to handling strength in 1 hour at 25 °C (77 °F)
  - Light color
  - Low odor

Formula	<u>Material</u>	<u>Supplier</u>	<u>Pounds</u>	<u>Gallons</u>
Part A				
	EPON Resin 828	Hexion	<u>100.0</u>	<u>10.31</u>
		Total A	100.0	10.31
Part B				
	EPIKURE Curing Agent 3270	Hexion	95.00	11.99
	EPIKURE Curing Agent 3253	Hexion	<u>5.00</u>	<u>0.62</u>
		Total B	100.00	12.61
		Total Part A & B	200.0	22.92

**Mixing Instructions** Weight EPIKURE Curing Agent 3270 and EPIKURE Curing Agent 3253 into a mixing vessel and blend with low speed agitation until homogeneous. Package in tightly sealed containers of steel, aluminum, polyolefin or glass.

**Typical Handling Properties** Table 1 / Handling Properties

	<u>Units</u>	<u>Value</u>
Resin/Converter combining ratio	By weight	1 : 1
	By volume	1 : 1:3

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Viscosity at 25 °C,			
Resin portion	cP	12,000	
Converter portion	cP	4,500	
Density, combined system	lbs/gal	8.73	
Gel time at 25 °C			
100 grams	min	5	
0.005-inch film	min	60	

**Application Instructions** All substrates to be bonded should be free of dirt, grease, oil, or other contaminants. Thoroughly mix equal parts by weight of the resin and converter. Apply adhesive to both surfaces to be bonded. Contact pressure is sufficient for development of maximum strength.

**Typical Adhesive Properties** Table 2 / Adhesive Properties

Cure schedule	Tensile shear strength <sup>1</sup> , psi
Hours, at 25 °C	
1.00	30
1.25	160
1.50	520
1.75	1,080
2.00	1,472
2.50	2,300
Weeks, at 25°C	
2	3,200
Postcure, at 149°C	
20 minutes	3,200

<sup>1</sup> Based on aluminum to aluminum lap shear specimens per ASTM D-1002.

**Effect of water** Table 3/ Effect of water immersion on tensile shear strength

Days Immersion	Water Temperature	Test Temperature	psi
0	25 °C	25 °C	2,300
30	25 °C	25 °C	2,300
90	25 °C	25 °C	2,300
30	66 °C	25 °C	2,100
90	66 °C	25 °C	1,300

**Storage Recommendations** regarding storage conditions can be obtained by visiting our web site at [www.hexion.com](http://www.hexion.com)

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## Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

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