

31 July 2002

INDUCTION/HEAT CURE STRUCTURAL EPOXY DYMAX ADHESIVE 8-20626

DESCRIPTION

DYMAX 8-20626 forms excellent bonds to a wide variety of metal surfaces, glass, ceramics, filled nylon, thermoset plastics and epoxy board. Bonds form rapidly between close fitting substrates upon induction or heat curing. DYMAX 8-20626 exhibits good thermal shock characteristics and excellent adhesion to a wide variety of plated surfaces. Formulated as a one-part adhesive, 8-20626 requires no mixing or activator application.

SUBSTRATES BONDED: • Metal Surfaces • Glass • Ceramics • Thermoset Plastics • Filled Nylon

FEATURES: • Fast Induction Cure • High Temperature Resistance • Heat Cure • Large Gap Cure
• One Component

TYPICAL UNCURED PROPERTIES

Solvent Content	None - 100% Reactive Solids	
Composition	Epoxy	
Appearance	Black Paste	
Specific Gravity	1.3	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Toxicity	Low	
Flash Point	>200°F (93°C)	
Viscosity ¹	110,000 cP (Thixotropic)	ASTM D-2556

TYPICAL CURED PROPERTIES

Durometer Hardness	D85	ASTM D-2240
Tensile at Break	8,000 psi	ASTM D-638
Elongation at Break	2%	ASTM D-638
Modulus	600,000 psi	ASTM D-638
Thermal Range ² (1/2" Overlap)	-65° to 400°F	
Thermal Shock ³	100% Strength Retention	
Side Impact	>60 in-lb.	Fisher Body Side Impact ⁴
Tensile Lap Shear Strength ⁵		
Substrate:		
Cold-Rolled Steel	5,000 psi	ASTM D-1002
0.020" Gap	3,000 psi	ASTM D-1002
0.040 Gap	2,500 psi	ASTM D-1002
Hot-Dipped Galvanized	2,500 psi	ASTM D-1002
Electrogalvanized	2,500 psi	ASTM D-1002
E-Coated Steel	3,500 psi	ASTM D-1002

Footnotes:

1. Brookfield viscometer (Model #RVF); viscosity taken in centipoise at 25°C at 20 rpm;
2. Stated range is for structural/load carrying applications. Strength loss will be experienced at the extremes of this range.
3. 5 cycles from ice water to 300°F stabilizing and tested at room temperature per ASTM D-1002.
4. Fisher Body side impact test (steel deforms at 30 in lbs.)
5. CURE SCHEDULE :
Oven Cured 8 min, 180°C or Induction Cured 3 seconds, 1.5 kW. (Induction cured using a Miller IHPS II Power Supply (5 kW) with a custom designed coil provided by International Thermal Systems, LLC., Milwaukee, WI)

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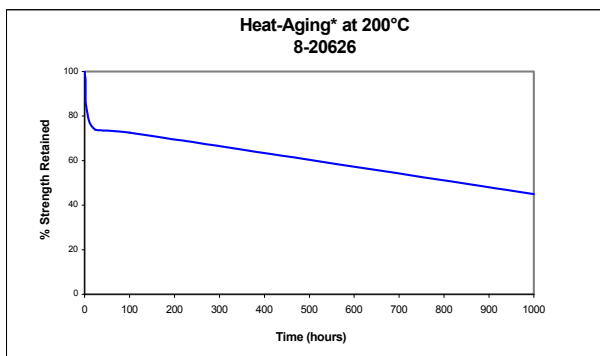
FACTORS AFFECTING CURING

- Size of Parts: Larger parts may require longer cure time; smaller parts may shorten time.
- Temperature of Substrates: Very cold parts will cause longer cure times; warmer parts shorten cure time.
- Surface Cleanliness: DYMAX adhesives exhibit a tolerance for dirty or oily surfaces. Clean surfaces, however, always result in optimum bond strengths. Waxes, greases and various release agents can inhibit or prevent bond formation.
- Clamping: Suggested for assembly parts that need to be kept immobilized until sufficient bond strength has developed. Bonds moved or disturbed during cure may be impaired.
- Induction Curing will be affected by part geometry and coil design.

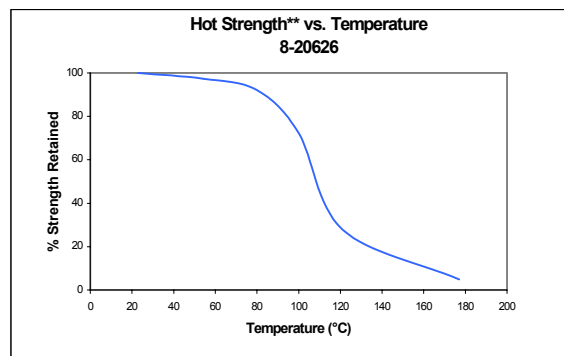
CURE SCHEDULES

CURE TIME	METHOD
3 – 7 seconds	1.5 kW Induction
5 – 8 minutes	180°C Oven
15 - 20 minutes	150°C Oven
40 minutes	121°C Oven

TYPICAL ENVIRONMENTAL RESISTANCE



*Initially Cured 8 minutes, 180°C. CR-Steel, no gap.



**Initially Cured 8 minutes, 180°C. 1 hour conditioning at temperature prior to testing. CR-Steel, no gap.

DISPENSING AND HANDLING ADHESIVE

DYMAX 8-20626 is available packaged in 30-mL, 1/4 liter, and 5-gallon pail packaging. It may be dispensed with a variety of automatic bench-top syringe applicators or other equipment as required. Questions relating to dispensing and curing systems for specific applications should be directed to the Technical Service Center at 860-482-1010.

Repeated or continuous skin contact should be avoided. Do wear impervious gloves and/or use barrier hand cream. Do not wear absorbent gloves. Adhesive may be removed with soap and water. Avoid towels and remove residue with chlorinated solvents, methanol or ethanol.

DYMAX CORPORATION

PRODUCT DATA SHEET

8-20626, 31 July 2002

STORAGE AND SHELF LIFE

Store material in a cool place when not in use. Product has a six-month minimum shelf life when stored below 90°F and in original container.

SAFETY

Wear impervious gloves and/or barrier cream. Repeated or continuous skin contact with liquid adhesive will cause irritation and should be avoided. Do not wear absorbent gloves. Remove adhesive from skin with soap and water. Never use solvents to remove adhesive from skin or eyes.

CAUTION

For industrial use only. Avoid breathing vapors. Avoid contact with eyes and clothing. In case of contact, immediately flush with water for at least 15 minutes; for eyes, get medical attention. Wash clothing before reuse. Keep out of reach of children. Do not take internally. If swallowed, vomiting should be induced at once and a physician called. For specific additional information, refer to the Material Safety Data Sheet before use.

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