

Adelphi A-453

High Temperature Resistant Adhesive

Adelphi A-453 is a high-strength, 100% reactive, room temperature or elevated temperature curing adhesive having good resistance to temperatures up to 400°F. It is used in a wide variety of critical, high-performance applications involving the bonding of all metals and other rigid materials (such as glass, ceramics, structural laminates) to themselves and to each other.

Fully-cured bonds yield tensile shear strength in the neighbourhood of **1,000 - 2,000 psi** when tested at either room temp or **400°F**. Cured adhesive exhibits minimal shrinkage and excellent resistance to most chemicals.

	Viscosity	Color	Base	Solvent	Wgt/Gal
Part 1	Semi Thixotropic	Grey	Modified epoxy	Uncured MEK	13.5 lbs.
Part 2		White			12.3 lbs.

Surface Preparation

Bonding surfaces must be thoroughly cleaned, degreased and dried. If bonding to metal surfaces, chemical etching or special surface treatment is recommended for maximum bond strength & exposure resistance.

Preparation of Adhesive

To 100 parts by weight of part 1, add 40 parts by weight of part 2 while stirring. Pot life of a one quart batch is approximately 30 minutes at room temperature (77°F).

NOTE: Pot life can be lengthened substantially if shallow metal mixing vessel is used or if small batches are mixed.

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Application

Mixed A-453, may be applied with spatula, trowel, knife, stiff brush, etc. Apply enough mixed adhesive to leave about 4 - 6 mils on one surface only or by coating 2 - 3 mils on each surface. Press parts together firmly enough to establish and maintain intimate contact during cure (10 psi is sufficient).

Cure

When cured at room temperature, A-453 develops approximately 85% of its maximum strength in 24 hours. Bond continues to advance in strength for approximately one week. If a faster cure is desired in order to develop the ultimate in heat resistance as rapidly as possible, a cure cycle of 30 minutes at 350°F is recommended.

Caution:

A-453 part 2 contains materials which will react with water and moist air. Keep container closed tightly and protect from moisture.

Technical Questions? Call us. We are happy to help! +631-537-8390

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