



ISO 9001: 2008 COMPANY

TECHNICAL DATASHEET

A-03

ACRYLIC WATER THIN CEMENT

GENERAL DESCRIPTION:

NeoSeal 03 is water-thin, somewhat flammable cement formulated to quickly develop very clear and high strength bonds for many thermoplastic substrates. The bond is achieved by first softening the surfaces to be joined and then fusing them together with the dissipation of the solvent. The initial bond forms within a matter of minutes and is followed by a significant and continual increase in bond strength over the next several hours. NeoSeal 3 may be preferred by some plastic fabricators because it is less likely to leave white marks (commonly called blushing).

SUBSTRATES TO JOIN:

NeoSeal 03 is formulated for bonding acrylic (poly-methyl methacrylate) to itself. It will also form strong bonds with other thermoplastics such as styrene, butyrate, and polycarbonate to themselves. It will not bond to certain cross-linked acrylics.

BONDING RECOMMENDATION:

NEOSEAL 03 is used extensively in sign fabrication for cementing acrylic letters to flat acrylic presentation panels and trim-capping of cut out acrylic letters. Strong butt joints are made with flat sheets by using the soak method. NEOSEAL 03 is also widely used in many applications (e.g. fabrication of display and presentation cases, medical equipment assembly, the bonding of plastic containers and pre-forms, and in the manufacture of numerous solvent welded structures and subassemblies using the capillary method).

ADHESIVE PROPERTIES AND CHARACTERISTICS @ 73°F (23°C)

Color:	Clear	Working Time:	1 – 2 Minutes
Viscosity:	Water Thin	Fixture Time:	3 Minutes
Specific Gravity:	1.37 ± 0.01	Time to Reach 80% of bond strength:	72 Hours

TYPICAL BOND STRENGTH:

Substrate Material	Aged Bond Strength, Kg/cm ² (lbs/in ²)		
	2 Hours	24 Hours	1 Week
Acrylic (cast & Extruded)	58.5 (831.8)	145.5 (2066.1)	180.0 (2559.6)
Polycarbonate	54.2 (770.0)	115.3 (1637.2)	170.3 (2421.6)
Polystyrene	29.7 (422.3)	93.2 (1325.3)	145.1 (2063.3)

DIRECTIONS FOR USE:

GENERAL: Surfaces to be joined must be clean, dry, and fit intimately without forcing. Apply cement with syringe, eyedropper or brush. Assemble while parts are still wet. If cement is applied to one surface, let the two surfaces be in gentle contact for a few seconds to allow the cement to soften the dry surfaces, then press parts together in firm contact. Initial bonds form very quickly. 65 – 80% of the ultimate bond strength will be obtained within 24 – 72 hours. Strength will continue to increase for several weeks.

CAPILLARY METHOD: Parts are placed lightly together and cement is applied to the edge of the joint with syringe or eyedropper. By capillary action, the cement will flow a considerable distance, approximately 0.25 inch (0.64 cm), between two such surfaces. Allow a few seconds for the cement to soften the surfaces. Press parts firmly together.

SOAK METHOD: Vertically dip surfaces until softened (approximately 2 to 5 minutes), then join pieces firmly together. If crazing is a problem, we suggest you consider annealing before cementing.

SHELF LIFE: One year in tightly sealed containers.

AVAILABILITY: It is available in 118ml (4 oz.), 237ml (8 oz.), 473ml (16 oz.) and 946ml (32 oz.) metal can.