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410 Pike Road • Huntingdon Valley, PA 19006

Chem-Set™

Chem-set™ 605

Quick Set Acrylic Adhesive

3/20/2019

Description: Toughened structural adhesive, after curing, produces superior strength load-bearing bonds to engineered plastics.

Intended Use: Bond: PVC, fiberglass, ABS, FRT, PPO, PCBB, Metton®, Lomod®, Valox®, Noryl®, GTX, Minlon®, epoxy, RIM urethane, wood, poorly prepared surfaces, and where outdoor weathering or solvent exposure is anticipated.

Product features:
Minimal surface preparation
Room temperature cure
1:1 mix ratio
Rapid fixture in thin set
Non-sagging formula

Limitations:

Typical Physical Properties:

Technical data should be considered representative or typical only and should not be used for specification purposes.

Cured 7 days @ 75° F	
Adhesive Tensile Lap Shear (Polycarb)	1,400 psi
Adhesive Tensile Lap Shear(ABS)	1,300 psi
Adhesive Tensile Lap Shear[GBS]	3,000 psi
Gap Fill	0.125 in.
Impact Resistance	22 ft.lb./in.
Shore Hardness	78 Shore D
Solids by Volume	100
Specfic Volume	25.21 in[3] lb.
Tensile Elongation	15-25%
Tpeel	35-40 pli

TESTS CONDUCTED
Adhesive Tensile Shear ASTM D 1002
T-Peel Strength ASTM D 1876
Cured Hardness Shore D ASTM D 2240
Impact Resistance ASTM D 950

Uncured	
Color	White
Fixture Time	8-10 min. @ 72°F, 22°C
Flashpoint	51°F
Full Cure	24 hrs.
Functional Cure	3/4-1 hr.
Mix Ratio by Volume	1:1
Mix Ratio by Weight	1:1
Mixed Density	9.16 lbs./gal.
Mixed Viscosity	50,000 cps
Service Temperature	-67°F to 250°F
Viscosity	Adhesive: 60,000 cps; Activator: 50,000 cps
Weight	Adhesive:10.22 lbs./gal.; Activator:8.11 lbs./gal.
Working Time	2.-3minutes @ 72°F, 22°C

Surface Preparation: Clean surface by solvent-wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapor phase degreasers or hot aqueous baths. If working with metal, abrade or roughen the surface to significantly increase the microscopic bond area and optimize the bond strength.

Mixing Instructions: ---- Proper homogenous mixing of resin and hardener is essential for the curing and development of stated strengths. ----

25 ML DEV-TUBE
1. Squeeze material into a small container the size of an ashtray.
2. Using mixing stick included on Dev-tube handle, vigorously mix components for one (1) minute.
3. Immediately apply to substrate.

35ML/50 ML/250 ML/380 ML/400 ML CARTRIDGES
1. Attach cartridge to Mark V™ [50ml], 380ml, 250ml [15:1 caulk gun], or 400ml dispensing systems [manual or pneumatic].

2. Open tip.
3. Burp cartridge by squeezing out some material until both sides are uniform (ensures no air bubbles are present during mixing).
4. Attach mix nozzle to end of cartridge.
5. Apply to substrate.

Application Instructions:

1. Apply mixed product directly to one surface in an even film or as a bead.
2. Assemble with mating part within recommended working time.
3. Apply firm pressure between mating parts to minimize any gap and ensure good contact (a small fillet of product should flow out the edges to display adequate gap fill.)
4. Bond line thickness of mixed adhesive should be @ .015"-.030" for optimum adhesion.

For very large gaps:
1. Apply product to both surfaces
2. Spread to cover entire area OR make a bead pattern to allow flow throughout the joint

Let bonded assemblies stand for recommended functional cure time prior to handling.

ADDITIONAL PRODUCT INFORMATION:
Can withstand processing forces
Do not drop, shock load, or heavily load
Intermittent exposures to temperatures above 250°F do not reduce performance characteristics.

STAINLESS STEEL AND ALUMINUM APPLICATIONS:
Apply Devcon Metal Prep 90 to prime and condition aluminum and stainless steel surfaces prior to using Plastic Welder White. Metal Prep 90 is fast-drying at ambient temperatures. Plastic Welder White can be applied within minutes of its use. Overlap shear strength will improve 30-40% if Metal Prep is used.

Storage:

Store between 55°F and 75°F. Continuous storage above 75°F reduces the shelf life of the materials. Prolonged exposure above 100°F quickly diminishes the product's reactivity, and should be avoided. Shelf life can be extended by refrigeration between 45°F and 55°F. DO NOT FREEZE.

Compliances:

None

Chemical Resistance:

Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F)

Acetic (Dilute) 10%	Excellent
Ammonia	Very good
Cutting Oil	Excellent
Glycols/Antifreeze	Excellent
Hydrochloric 10%	Fair
Mineral Spirits	Excellent
Motor Oil	Excellent
Sodium Hydroxide 10%	Very good

Sulfuric 10%	Excellent

Precautions:

Please refer to the appropriate safety data sheet (SDS) prior to using this product.

For technical assistance, please call 1-855-489-7262

FOR INDUSTRIAL USE ONLY

Warranty:

Chemical Concepts, Inc. will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

Disclaimer:

All information on this data sheet is based on laboratory testing and is not intended for design purposes. Chemical Concepts, Inc. makes no representations or warranties of any kind concerning this data.

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