# MAX BOND Thixotropic A/B

## Physical Properties

| | |
|---|---|
| Mixed Density | 1.10 gm/cc |
| Form and Color | Thixotropic Gel |
| Part A – Resin | White Thixotropic Liquid |
| Part B – Curing Agent | Amber Gel |
| Viscosity Mixed | 135,624 cPs @ 77°F (25ºC) |
| Mix Ratio | Equal parts by volume or weight |
| Working Time (200 gram mass) | 85 Minutes @ 77°F (25ºC) |
| Peak Exotherm (200 gram mass) | 160°F |
| Cure Time | 24 Hrs. Minimum |
| Accelerated Cure | 2 Hours Room TemperaturePlus 1 hour 212oF |

## Mechanical Properties

| | |
|---|---|
| Hardness | 85 ± 5 Shore D |
| Tee-Peel Strength | 4 Lbs. per inch Width |
| Compressive Strength | 15,800 psi @ 77°F (25ºC) |
| Tensile Shear Strength | 3,700 psi @ 77°F (25ºC) |
| | 2,200 psi @ -112°F (-80ºC) |
| | 1,450 psi @ 212°F (100ºC) |
| Elongation Maximum Yield | 2.3% |
| Tensile Strength | 8,800 psi |
| Service Temperature | -67°F to 250°F |
| Thin Film Set Time | 120 minutes |

## Electrical Properties

| Property | Test Method | Results |
|---|---|---|
| Dielectric Constant60 Cycles – RT1000 Cycles – RT | ASTM-D-159-47-T | 3.243.21 |
| Volume Resistivity | ASTM-D-257-252T | 1.25 x 1014 ohms-cm |
| Arc Resistance | ASTM-D-47T | 78 seconds |
| Power Factor60 Cycles – RT1000 Cycles – RT | ASTM-D-150-47T | 0.00870.0106 |
| Dielectric Strength | ASTM-D-149-44 | 460 to 500 volts/mil |
| Loss Factor60 Cycles – RT1000 Cycles – RT | ASTM-D-150-47T | 0.03370.0341 |

## Chemical Resistance Test – 10 Day Soak Test @ 77°F (25°C)

| Test Solvent | % Change in weight |
|---|---|
| Distilled Water | 1.23 |
| Sulfuric Acid 30% | 1.9 |
| Nitric Acid | 3.8 |
| Toluene | 3.7 |
| Sodium Hydroxide | 10.00 |
| Anti-Freeze | No Effect |
| Motor Oil soak | No Effect |

## Viscosity Comparison Chart

| MATERIAL | VISCOSITY (centipoises) |
|---|---|
| Water @ 70° F | 1-5 |
| Blood or Kerosene | 10 |
| Anti-Freeze or Ethylene Glycol | 15 |
| Motor Oil SAE 10 or Corn Syrup | 50-100 |
| Motor Oil SAE 30 or Maple Syrup | 150-200 |
| Motor Oil SAE 40 or Castor Oil | 250-500 |
| Motor Oil SAE 60 or Glycerin | 1,000-2,000 |
| Corn Syrup or Honey | 2,000-3,000 |
| Blackstrap Molasses | 5,000-10,000 |
| Hershey Chocolate Syrup | 10,000-25,000 |
| Heinz Ketchup or French's Mustard | 50,000-70,000 THIXOTROPIC |
| Tomato Paste or Peanut Butter | 150,000-200,000 THIXOTROPIC |
| Crisco Shortening or Lard | 1,000,000-2,000,000 |
| Caulking Compound | 5,000,000-10,000,000 |
| Window Putty | 100,000,000 |

**Tensile Shear Strength and Peel Adhesion of MAX BOND THIXOTROPIC to other substrates**

| Substrate | Surface Treatment | Cure Condition | Shear Strength @ 77$^0$F | Shear Strength @ -319$^0$F | T-peel Per Inch Width @ 77$^0$F | T-peel Per Inch Width @ 319$^0$F |
|---|---|---|---|---|---|---|
| Teflon -TFE | Naphthalene Wipe | 48 Hrs, @ 77$^0$F | 2300 | 1800 | 10 | 5 |
| Teflon -TFE | Naphthalene Wipe | 1 Hr. @ 250$^0$F | 2800 | 3200 | 10 | 5 |
| Teflon – FEP | Naphthalene Wipe | 48 Hrs, @ 77$^0$F | | | 12 | 4 |
| Teflon – FEP | Naphthalene Wipe | 1 Hr. @ 250$^0$F | 3000 | 5300 | 15 | 15 |
| KE L- F | Solvent Wipe | 1 Hr. @ 250$^0$F | 2600 | 5000 | 10 | 17 |
| Tedlar | Solvent Wipe | 48 Hrs, @ 77$^0$F | 2300 | 1600 | 5 | 2 |
| Nylon FM63 | Solvent Wipe | 48 Hrs, @ 77$^0$F | 1000 | 700 | | |
| Zytel 61 | 1500 | 48 Hrs, @ 77$^0$F | 1500 | 700 | | |
| Zytel 61 | Solvent Wipe | 48 Hrs, @ 77$^0$F | 1200 | 800 | 1 | |
| Chloro-Butyl Rubber | Solvent Wipe | 48 Hrs, @ 77$^0$F | 320 | 2300 | 5 | 5 |
| Viton A-HY | Solvent Wipe | 1 Hr. @ 250$^0$F | 1400 | 4800 | 19 | 7 |
| Adiprene C | Solvent Wipe | 1 Hr. @ 250$^0$F | 2600 | 3800 | 15 | 10 |
| Thiokol FA | Solvent Wipe | 1 Hr. @ 250$^0$F | 130 | 1300 | 7 | 2 |
| Hypalon 40 | Solvent Wipe | 1 Hr. @ 250$^0$F | 2800 | 4400 | 15 | 4 |
| Copper Foil | Dilute Nitric Acid Etch | 48 Hrs, @ 77$^0$F | 1400 | 1000 | 2 | 5 |
| Lead Foil | Dilute Nitric Acid Etch | 48 Hrs, @ 77$^0$F | 1700 | 700 | 5 | 1 |
| Tin Foil | Dilute Nitric Acid Etch | 48 Hrs, @ 77$^0$F | 2400 | 2200 | 4 | 3 |
| Cadmium Foil | Dilute Nitric Acid | 48 Hrs, @ 77$^0$F | 1500 | 900 | 1 | 1 |