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# PARFIX 3404 Cyanoacrylate Adhesive

Medium Viscosity, Fast Cure Speed

ParFix 3404 is medium viscosity combined with fast cure speed, ethyl cyanoacrylate adhesive (CA). It is specifically formulated for bonding rubbers and plastic parts.

## APPLICATIONS:

- Ideal for manufacturing O-rings from various rubber compounds.
- Suitable for bonding rubber parts, rubber gaskets, weatherstripping, injection molded badges and labels.
- Wide variety of industrial manufacturing and repairing applications

## BONDING TIMES:

| | | | |
|---|---|---|---|
| Plastics | 2-10 seconds | Rubbers | < 5 seconds |
| Steel | 15-30 seconds | Leather | 5-15 seconds |
| Aluminum | 2-10 seconds | Ceramics | 12-18 seconds |

## PHYSICAL PROPERTIES

### Liquid

| | |
|---|---|
| Composition | Ethyl Cyanoacrylate |
| Appearance | Colorless liquid |
| Viscosity@ 25 $^0$C, cps<br>Brookfield LVF, Spindle 1-60 rpm | 80 - 100 |

### Cured Adhesive

| | |
|---|---|
| Gap Filling | 0.2 mm |
| Tensile Shear Strength | 18-28 n/mm$^2$ |
| Service Temperature Range | -60 to +80 $^0$C |
| Full Cure | 24 hours |
| Melting Point Temperature | 160 to 170 $^0$C |

## Shear Strength ASTM D 1002/DIN 53283

| | | | |
|---|---|---|---|
| Grit Blasted Steel | > 20 N/mm$^2$ | Etched Aluminum | > 18 N/mm$^2$ |
| Rubbers | > 22 N/mm$^2$ | Wood | > 25 N/mm$^2$ |
| Polycarbonate | > 12 N/mm$^2$ | ABS | > 10 N/mm$^2$ |

## Mechanical Properties:

| | |
|---|---|
| Coefficient of thermal conductivity, ASTM C177, $W.m^{-1}\ k^{-1}$ | 0.1 |
| Glass Transition Temperature, ASTM E228, | 122 $^0$C |
| Coefficient of thermal expansion, ASTM D696, $K^{-1}$ | 75 x $10^{-6}$ |
| Dielectric strength, ASTM D149, kV/mm | 27 |
| Volume resistivity, ASTM D257, Ohm.cm | 1 x $10^{16}$ |
| Dielectric constant, 25 $^0$C, ASTM D150 | 2.3 |

## Chemical Resistance Properties:

| Chemical | Temp. | % Initial strength retained | |
|---|---|---|---|
| | | 500 hours | 1000 hours |
| Isopropanol | 22 $^0$C | 85 | 85 |
| Gasoline | 22 $^0$C | 80 | 75 |
| Motor Oil | 40 $^0$C | 90 | 90 |
| Mineral Spirit | 22 $^0$C | 90 | 90 |

## APPLICATION INSTRUCTIONS:

- All surfaces must be clean, dry, dust and grease free. Best result will be achieved with surfaces that have been lightly abraded immediately prior to bonding.
- If using accelerator apply to one component surface only. Apply thin film of adhesive to the other surface and bring the pieces together immediately. Hold for few seconds without disturbing the joints.
- When bonding “O” rings, cut a fresh surface onto each end of the rubber to gain the best possible strength.