

| Physical Properties  | Plastic Steel® (A) | Plastic Steel®<br>5 Minute® Putty (SF) | Aluminum<br>Putty | Stainless Steel<br>Putty (ST) | Bronze<br>Putty (BR) | Titanium<br>Putty | Ceramic Repair<br>Putty | Wear Resistant<br>Epoxy (WR-2) |
|--|--------------------|--|-------------------|-------------------------------|----------------------|-------------------|-------------------------|--------------------------------|
| <b>Color</b>   | Dark Grey          | Dark Grey                              | Aluminum          | Grey                          | Bronze               | Grey              | Dark Blue               | Dark Grey                      |
| <b>Mix ratio by weight / volume</b> (resin:hardener)   | 9:1 / 2.5:1        | 1.7:1 / 1:1                            | 9:1 / 4:1         | 11:1 / 3.75:1                 | 9:1 / 3:1            | 4.3:1 / 3:1       | 7:1 / 4.3:1             | 9:1 / 4:1                      |
| <b>Mixed viscosity</b> cps   | Putty              | Putty                                  | Putty             | Putty                         | Putty                | Putty             | Putty                   | Putty                          |
| <b>Functional cure</b> hours   | 16                 | 1                                      | 16                | 16                            | 16                   | 16                | 16                      | 16                             |
| <b>Pot life</b> minutes @ 75 °F  | 45                 | 5                                      | 60                | 58                            | 35                   | 21                | 25                      | 60                             |
| <b>Specific volume</b> inches <sup>3</sup> /pound  | 11.9               | 12.2                                   | 17.5              | 12.4                          | 12.4                 | 11.7              | 16.4                    | 13.9                           |
| <b>Coverage per pound</b> inches <sup>2</sup> @ 1/4" thickness                                       | 48                 | 49                                     | 70                | 50                            | 50                   | 47                | 66                      | 56                             |
| <b>Cured hardness</b> (ASTM D2240) Shore D   | 85                 | 85                                     | 85                | 85                            | 85                   | 87                | 90                      | 85                             |
| <b>Cured shrinkage</b> (ASTM D2566) inch/inch  | 0.0006             | 0.0006                                 | 0.0008            | 0.0010                        | 0.0010               | 0.0010            | 0.0022                  | 0.0005                         |
| <b>Adhesive tensile shear</b> (ASTM D1002) psi   | 2,800              | 2,026                                  | 2,600             | 2,385                         | 2,680                | 2,000             | 2,000                   | 2,200                          |
| <b>Tensile strength</b> (ASTM D638) psi  | 3,220              | 3,100                                  | 3,680             | 3,340                         | 2,640                | 4,000             | 3,900                   | 4,300                          |
| <b>Compressive strength</b> (ASTM D695) psi  | 8,260              | 10,400                                 | 8,420             | 8,400                         | 8,540                | 18,800            | 12,700                  | 9,800                          |
| <b>Flexural strength</b> (ASTM D790) psi   | 5,600              | 7,680                                  | 6,760             | 5,280                         | 6,180                | 7,700             | 6,475                   | 6,500                          |
| <b>Modulus of elasticity</b> (ASTM D638) psi x 10 <sup>5</sup>                                       | 8.5                | 7.5                                    | 8.0               | 8.0                           | 8.0                  | 9.5               | 9.0                     | 7.5                            |
| <b>Coefficient of thermal expansion</b> (ASTM D696) [(in)/(in x °F)] x 10 <sup>-6</sup>              | 48                 | 34                                     | 29                | 34                            | 33                   | 22                | 17                      | 32                             |
| <b>Thermal conductivity</b> (ASTM C177) [(cal x cm)/(sec x cm <sup>2</sup> x °C)] x 10 <sup>-3</sup> | 1.37               | 2.65                                   | 1.73              | 1.23                          | 1.57                 | 1.95              | 1.88                    | 1.67                           |
| <b>Dielectric constant</b> (ASTM D150) 1 KHz   | 67.5               | 35.0                                   | 21.4              | 75.0                          | 75.0                 | 44.8              | 41.0                    | 6.3                            |
| <b>Dielectric strength</b> (ASTM D149) volts/mil   | 30                 | 30                                     | 100               | 30                            | 25                   | 56                | 370                     | 400                            |
| <b>Maximum continuous service temperature</b> °F dry   | 250                | 200                                    | 250               | 250                           | 250                  | 350               | 350                     | 250                            |

Notes: <sup>4</sup> Taber H-18 wheel (mg / 1000 revolutions @ 1000 gram load) <sup>5</sup> Due to solvent loss

Key: ● Excellent ○ Very Good ○ Fair ○ Poor

| Chemical Resistance             | Plastic Steel® (A) | Plastic Steel®<br>5 Minute® Putty (SF) | Aluminum<br>Putty | Stainless Steel<br>Putty (ST) | Bronze<br>Putty (BR) | Titanium<br>Putty | Ceramic Repair<br>Putty | Wear Resistant<br>Epoxy (WR-2) |
|---------------------------------|--------------------|--|-------------------|-------------------------------|----------------------|-------------------|-------------------------|--------------------------------|
| <b>ACIDS</b>                    |                    |  |                   |                               |                      |                   |                         |                                |
| Acetic 10%                      | ○                  | ○                                      | ○                 | ○                             | ○                    | ○                 | ○                       | ○                              |
| Hydrochloric 10%                | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| Sulfuric 10%                    | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| <b>ALCOHOLS</b>                 |                    |  |                   |                               |                      |                   |                         |                                |
| Methanol                        | ○                  | ○                                      | ○                 | ○                             | ○                    | ●                 | ●                       | ○                              |
| Isopropanol                     | ○                  | ○                                      | ○                 | ○                             | ○                    | ●                 | ●                       | ○                              |
| <b>KETONES</b>                  |                    |  |                   |                               |                      |                   |                         |                                |
| Acetone                         | ○                  | ○                                      | ○                 | ○                             | ○                    | ○                 | ○                       | ○                              |
| Methyl ethyl ketone             | ○                  | ○                                      | ○                 | ○                             | ○                    | ○                 | ○                       | ○                              |
| <b>ALKALIS</b>                  |                    |  |                   |                               |                      |                   |                         |                                |
| Ammonium hydroxide 20%          | ●                  | ○                                      | ○                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| Sodium hydroxide 10%            | ●                  | ○                                      | ○                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| <b>HYDROCARBONS</b>             |                    |  |                   |                               |                      |                   |                         |                                |
| Gasoline (unleaded)             | ●                  | ●                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| Mineral spirits                 | ●                  | ●                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| <b>CHLORINATED HYDROCARBONS</b> |                    |  |                   |                               |                      |                   |                         |                                |
| Perchloroethylene               | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ○                              |
| 1-1-1 Trichloroethane           | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| <b>SALTS</b>                    |                    |  |                   |                               |                      |                   |                         |                                |
| Sodium chloride                 | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |
| Trisodium phosphate             | ●                  | ○                                      | ●                 | ●                             | ●                    | ●                 | ●                       | ●                              |