

**Procedure**

Samples of Silver Seal II, which were (A) uncured, (B) heat cured, (C) chemically cured, were immersed for eight hours in various solvents at 70°F and in various acids at both 70°F and 170°F. The samples were then evaluated for softening or chemical attack.

| Solvent/Acid                             | A<br>Uncured |         | B<br>Heat Cured |           | C<br>Chemically Cured |           |
|--|--------------|---------|-----------------|-----------|-----------------------|-----------|
|  | 70°F         | 170°F   | 70°F            | 170°F     | 70°F                  | 170°F     |
| 1. Perchloroethylene                     | Poor         |         | Excellent       |           | Excellent             |           |
| 2. Methylene Ketone                      | Poor         |         | Excellent       |           | Excellent             |           |
| 3. Toluene                               | Fair         |         | Excellent       |           | Excellent             |           |
| 4. Toluol                                | Fair         |         | Excellent       |           | Excellent             |           |
| 5. Acetone                               | Fair         |         | Excellent       |           | Excellent             |           |
| 6. Mineral Spirits                       | Fair         |         | Excellent       |           | Excellent             |           |
| 7. Methanol                              | Good         |         | Excellent       |           | Excellent             |           |
|  | 70°F         | 170°F   | 70°F            | 170°F     | 70°F                  | 170°F     |
| 8. Conc. HCl                             | Poor         | Not Run | Excellent       | Excellent | Excellent             | Excellent |
| 9. Conc. HNO <sub>3</sub>                | Excellent    | Poor    | Excellent       | Fair      | Excellent             | Poor      |
| 10. Conc. H <sub>2</sub> SO <sub>4</sub> | Excellent    | Fair    | Excellent       | Fair      | Excellent             | Fair      |
| 11. 52% HF                               | Poor         | Not Run | Excellent       | Excellent | Excellent             | Excellent |

**Explanation of Ratings**

**Solvents**

- Poor – Softening of sample, swelling
- Fair – Slight softening, no swelling
- Good – Very slight surface softening
- Excellent – No effect

**Acids**

- Poor – Severe attack
- Fair – Surface oxidation, sample intact
- Excellent – No effect