

## Multibase TPSiV™ 3040-70A Thermoplastic Silicone Vulcanizate

Category : Polymer , Thermoplastic , Elastomer, TPE , Thermoplastic Vulcanizate Elastomer (TPV) , Polyurethane, TP , Silicone, Thermoplastic

### Material Notes:

These materials are a novel family of TPV products based on cross-linked silicone rubber dispersed into various engineering thermoplastics. The dispersion of the silicone internal phase is produced by dynamic "vulcanization" or cross-linking of silicone polymers within the thermoplastic organic phase and results in a stable droplet type morphology as shown in the TEM micrograph. TPSiV™ combines the elastomeric performance of silicone rubber with the melt re-processability and thermal and chemical resistance of engineering thermoplastics. Thermoplastic polyurethane based TPSiV™ (3010, 3011, 3111, 3040, 3340 grades) combine the benefits of excellent abrasion resistance from the polyurethane as well as the lower coefficient of friction and improved temperature properties from the silicone rubber. TPSiV™ 3040-55A / 60A / 65A / 70A / 85A: Plasticizer free, these grades are designed for good flow characteristics and a unique "silky" feel. They are used in injection molding applications, specifically overmolding and co-molding on PC and ABS. They exhibit good abrasion resistance, and good retention of properties in harsh environments. They are commonly used in communication devices, computers, and electronic devices. They "set up" quickly in the mold, thus yielding fairly fast cycle times. Information provided by Multibase, a Dow Corning Company

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Multibase-TPSiV-3040-70A-Thermoplastic-Silicone-Vulcanizate.php](http://www.lookpolymers.com/polymer_Multibase-TPSiV-3040-70A-Thermoplastic-Silicone-Vulcanizate.php)

| Physical Properties | Metric    | English   | Comments  |
|---------------------|-----------|-----------|-----------|
| Specific Gravity    | 1.15 g/cc | 1.15 g/cc | ASTM D792 |

| Mechanical Properties     | Metric    | English  | Comments           |
|---------------------------|-----------|----------|--------------------|
| Hardness, Shore A         | 68        | 68       | 10 sec; ASTM D2240 |
| Tensile Strength at Break | 11.7 MPa  | 1700 psi | ASTM D412          |
| Elongation at Break       | 600 %     | 600 %    | ASTM D412          |
| Tear Strength             | 45.6 kN/m | 260 pli  | ASTM D412          |

| Thermal Properties | Metric | English | Comments |
|--------------------|--------|---------|----------|
| Flammability, UL94 | HB     | HB      |          |

| Processing Properties     | Metric | English | Comments |
|---------------------------|--------|---------|----------|
| Rear Barrel Temperature   | 180 °C | 356 °F  |          |
| Middle Barrel Temperature | 190 °C | 374 °F  |          |
| Front Barrel Temperature  | 200 °C | 392 °F  |          |
| Nozzle Temperature        | 205 °C | 401 °F  |          |
| Mold Temperature          |        |         |          |

| Processing Properties | 10.0 - 30.0 °C<br>Metric | 50.0 - 86.0 °F<br>English | Comments |
|-----------------------|--------------------------|---------------------------|----------|
| Drying Temperature    | 80.0 °C                  | 176 °F                    |          |
| Dry Time              | 2 - 4 hour               | 2 - 4 hour                |          |

| Descriptive Properties | Value         | Comments |
|------------------------|---------------|----------|
| Injection Rate         | Moderate-Fast |          |

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China