## Innothane® IE-3031

Polyurethane Thermoset Elastomer Innovative Polymers, Inc.

## Message:

IE-3031 is a rigid polyurethane formulated for room temperature hand-batch or meter-mix equipment. Excellent physical properties can be obtained with a room temperature cure without the utilization of mercury, MOCA or TDI. It has excellent green strength yielding enhanced demold characteristics and also yields easy to paint surfaces requiring little preparation.

| General Information               |                          |       |             |  |  |
|-----------------------------------|--------------------------|-------|-------------|--|--|
| Features                          | Good Green Strength      |       |             |  |  |
|                                   | Good Mold Release        |       |             |  |  |
|                                   | High Rigidity            |       |             |  |  |
|                                   | Paintable                |       |             |  |  |
|                                   |                          |       |             |  |  |
| RoHS Compliance                   | RoHS Compliant           |       |             |  |  |
| Appearance                        | White                    |       |             |  |  |
| Physical                          | Nominal Value            | Unit  | Test Method |  |  |
| Specific Gravity                  |                          |       |             |  |  |
| Cured                             | 1.08                     | g/cm³ |             |  |  |
| Hardener                          | 1.08                     | g/cm³ |             |  |  |
| Base Resin                        | 1.19                     | g/cm³ |             |  |  |
| Molding Shrinkage - Flow          | 0.10 to 0.50             | %     | ASTM D2566  |  |  |
| Mechanical                        | Nominal Value            | Unit  | Test Method |  |  |
| Flexural Modulus                  | 1860                     | MPa   | ASTM D790   |  |  |
| Flexural Strength                 | 70.3                     | MPa   | ASTM D790   |  |  |
| Impact                            | Nominal Value            | Unit  | Test Method |  |  |
| Notched Izod Impact               | 27                       | J/m   | ASTM D256   |  |  |
| Thermal                           | Nominal Value            | Unit  | Test Method |  |  |
| Deflection Temperature Under Load |                          |       | ASTM D648   |  |  |
| 0.45 MPa, Unannealed              | 75.0                     | °C    |             |  |  |
| 1.8 MPa, Unannealed               | 70.0                     | °C    |             |  |  |
| Thermoset                         | Nominal Value            | Unit  | Test Method |  |  |
| Thermoset Components              |                          |       |             |  |  |
|                                   | Mix Ratio by Volume: 100 |       |             |  |  |
|                                   |                          |       |             |  |  |
|                                   |                          |       |             |  |  |
| Hardener                          | Mix Ratio by Weight: 91  |       |             |  |  |
| riaractici                        | With Radio by Weight. 31 |       |             |  |  |

| Resin                       | Mix Ratio by Volume: 100 |      |             |
|-----------------------------|--------------------------|------|-------------|
| Demold Time                 | 7.5 to 13                | min  |             |
| Uncured Properties          | Nominal Value            | Unit | Test Method |
| Viscosity                   |                          |      |             |
| 25°C <sup>1</sup>           | 0.075                    | Pa·s |             |
| 25°C <sup>2</sup>           | 0.15                     | Pa·s |             |
| 25°C <sup>3</sup>           | 0.45                     | Pa·s |             |
| Curing Time (25°C)          | 1.7E+2                   | hr   |             |
| Gel Time                    | 1.5 to 2.5               | min  |             |
| Cured Properties            | Nominal Value            | Unit | Test Method |
| Shore Hardness (Shore D)    | 70 to 80                 |      | ASTM D2240  |
| Tensile Strength            | 34.5                     | MPa  | ASTM D638   |
| Tensile Elongation at Break | 20                       | %    | ASTM D638   |
| NOTE                        |                          |      |             |
| 1.                          | Resin                    |      |             |
| 2.                          | Mixed                    |      |             |
| 3.                          | Hardener                 |      |             |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

## Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

