

## KIMIA® 6(W300)

MATERIAL NAME: PA6

COLOR: WHITE

CODE: W300

MATERIAL DESCRIPTION: Kimia® W300 is a general purpose, un-reinforced, white color regenerated Polyamide 6 resin injection molding.

| No.                                 | PROPERTIES                         |                  | METHOD                | UNIT                | VALUE       |
|-------------------------------------|------------------------------------|------------------|-----------------------|---------------------|-------------|
| <b>GENERAL</b>                      |                                    |                  |                       |                     |             |
| 1                                   | ASH CONTENT                        |                  | ISO 3451              | %                   | 0.00        |
| 2                                   | RELATIVE DENSITY                   |                  | ISO 1183              | g/cm <sup>3</sup>   | 1.12        |
| 3                                   | VISCOSITY NUMBER                   |                  | ISO 307               | Cm <sup>3</sup> /gr | ---         |
| 4                                   | MOISTURE CONTENT                   |                  | ISO 62                | %                   | 0.27        |
| <b>MECHANICAL</b>                   |                                    |                  |                       |                     |             |
| 5                                   | TENSIL STRENGTH AT BREAK (5mm/min) |                  | ASTM/D638             | MPa                 | 61.1        |
| 6                                   | ELONGATION AT BREAK (5mm/min)      |                  | ASTM/D638             | %                   | 107.9       |
| 7                                   | TENSIL MODULUS (5mm/min)           |                  | ASTM/D638             | MPa                 | 6800        |
| 8                                   | NOTCHED IMPACT STRENGTH-IZOD       |                  | ISO 180               | Kj/m <sup>2</sup>   | 8.12        |
| 9                                   | UN NOTCHED IMPACT STRENGTH-IZOD    |                  | ISO 180               | Kj/m <sup>2</sup>   | N.B         |
| <b>THERMAL</b>                      |                                    |                  |                       |                     |             |
| 10                                  | HARDNESS                           |                  | ISO 868               | Shore D             | 72          |
| 11                                  | MFI                                |                  | ASTM/D1238            | g/10min             | ---         |
| 12                                  | VICAT(50° C/h)                     | 10N              | ASTM/D1238            | ° C                 | 211.3       |
|                                     |                                    | 50N              |                       |                     | 168.9       |
| <b>BEHAVIOR IN FIRE</b>             |                                    |                  |                       |                     |             |
| 13                                  | HDT (120° C/h)                     | 264psi           | ASTM/D648             | ° C                 | 224.8       |
|                                     |                                    | 66psi            |                       |                     | 86.9        |
| 14                                  | Flammability                       | Class            | UL94                  | -                   | ---         |
| <b>INJECTION PROCESS PARAMETERS</b> |                                    |                  |                       |                     |             |
| <i>Loading</i>                      |                                    | <i>Injection</i> |                       | <i>Degassing</i>    |             |
| <i>Speed</i>                        | <i>Pressure (Bar)</i>              | <i>Speed</i>     | <i>Pressure (Bar)</i> | <i>Temperature</i>  | <i>Time</i> |
| 70                                  | 70                                 | 70               | 70                    | 70 °C               | 2h          |
| <i>Mold Releasing</i>               |                                    | <i>Zone</i>      |                       |                     |             |
| <i>Good</i>                         |                                    | 5                | 4                     | 3                   | 2           |
|                                     |                                    | 225 °C           | 225 °C                | 230 °C              | 235 °C      |
|                                     |                                    |                  |                       | 1                   | 235 °C      |