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**TECHNICAL DATA AND PROCESS SHEET**

**30% CARBON FIBER REINFORCED COPOLYMER ACETAL**

**INELEC POMCCF30**

**TYPICAL PROPERTIES**

| <b>PROPERTY</b>                         | <b>ASTM METHOD</b> | <b>English</b> | <b>UNITS</b>                | <b>Metric SI</b> | <b>UNITS</b>             |
|---|--------------------|----------------|-----------------------------|------------------|--------------------------|
| <b>GENERAL</b>                          |                    |                |                             |                  |                          |
| SPECIFIC GRAVITY                        | D792               | 1.48           |                             | 1.48             |                          |
| SPECIFIC VOLUME                         |                    | 18.7           | in <sup>3</sup> /lb         | 0.676            | cm <sup>3</sup> /gm      |
| WATER ABSORPTION (24 Hrs)               | D570               | 0.5            | %                           | 0.50             | %                        |
| MOLD SHRINKAGE                          | D955               | 0.4-0.6        | %                           | 0.4-0.6          | %                        |
| <b>MECHANICAL</b>                       |                    |                |                             |                  |                          |
| TENSILE STRENGTH                        | D638               | 22,000         | psi                         | 152              | MPa                      |
| ELONGATION, YIELD                       | D638               |                |                             |                  |                          |
| FLEXURAL STRENGTH                       | D790               | 35,000         | psi                         | 241              | MPa                      |
| FLEXURAL MODULUS                        | D790               | 2,200,000      | psi                         | 15,168           | MPa                      |
| SHEAR STRENGTH                          | D732               |                |                             |                  |                          |
| IZOD IMPACT STRENGTH                    | D256               |                |                             |                  |                          |
| NOTCHED 1/8"                            |                    | 1.0            | ft.lb./in.                  | 53               | J/m                      |
| UNNOTCHED 1/8"                          |                    | 4              | ft.lb./in.                  | 213              | J/m                      |
| ROCKWELL HARDNESS                       |                    |                |                             |                  |                          |
| <b>THERMAL</b>                          |                    |                |                             |                  |                          |
| HDTUL                                   | D648               | 325            | °F                          | 163              | °C                       |
| @ 264 PSI                               |                    |                |                             |                  |                          |
| COEFFICIENT OF LINEAR THERMAL EXPANSION | D696               | 2              | in./in. F x10 <sup>-5</sup> | 3.6              | mm/mm C 10 <sup>-6</sup> |
| FLAMMABILITY <sup>1</sup>               | U.L.Subj 94        | HB@1/16"       | in                          | HB@1.5           | mm                       |
| <b>ELECTRICAL</b>                       |                    |                |                             |                  |                          |
| SURFACE RESISTIVITY                     |                    | 10e2-10e4      | ohms/sq                     | 10e2-10e4        | ohms/sq                  |
| <b>PROCESSING</b>                       |                    |                |                             |                  |                          |
| DRYING TEMPERATURE                      |                    | 180            | °F                          | 82               | °C                       |
| DRYING TIME                             |                    | 4              | hrs                         | 4                | hrs                      |
| MELT TEMPERATURE                        |                    | 375-410        | °F                          | 190 - 210        | °C                       |
| MOLD TEMPERATURE                        |                    | 200            | °F                          | 93               | °C                       |
| BACK PRESSURE                           |                    | 50-100         | psi                         | 0.3 - 0.7        | MPa                      |
| SCREW SPEED                             |                    | 30-60          | rpm                         | 30-60            | rpm                      |
| VENT DEPTH                              |                    | 0.0005-0.001   | in                          | 0.0125 - 0.0251  | mm                       |

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