

## TECHNICAL DATA FOR KYNAR FLEX® 2500-20 PELLETS/ KYNAR FLEX® 2501-20 POWDER

|   | <u>METHOD</u> | <u>CONDITIONS</u>                    | <u>ENGLISH/COMMON UNITS</u> | <u>VALUE</u>                |
|---|---------------|--------------------------------------|-----------------------------|-----------------------------|
| <u>PHYSICAL PROPERTIES</u>              |               |                                      |                             |                             |
| Specific Gravity                        | D792          | 73°F (23°C)                          | -                           | 1.80 – 1.82                 |
| Refractive Index                        | D542          | at Sodium D line, 77°F (25°C)        | -                           | 1.40                        |
| Water Absorption                        | D570          | at 68°F (20°C)<br>Immersion/24 hours | %                           | -                           |
| <u>PROCESSING CHARACTERISTICS</u>       |               |                                      |                             |                             |
| Melt Viscosity                          | D3835         | 450°F, 100 sec <sup>-1</sup>         | poise                       | 5,000 – 16,000              |
| Melt Flow Rate                          | D1238         | 450°F, 27.5625 lb.                   | g/10 min                    | 1 - 15                      |
| <u>THERMAL PROPERTIES</u>               |               |                                      |                             |                             |
| Coefficient of Linear Thermal Expansion | D696          | -                                    | 10E-5/°F                    | 8.5 - 10.8                  |
| Deflection Temperature                  | D648          | at 264 psi (1.82 MPa)                | °F (°C)                     | 80 – 100 (27 – 38)          |
| Deflection Temperature                  | D648          | at 66 psi (0.45 MPa)                 | °F (°C)                     | -                           |
| Melting Temperature                     | D3418         | -                                    | °F (°C)                     | 242 – 257 (117 – 125)       |
| <u>FLAMMABILITY</u>                     |               |                                      |                             |                             |
| Limiting Oxygen Index (LOI)             | D2868         | -                                    | % O <sub>2</sub>            | 42                          |
| Thermal Decomposition TGA               | 1% wt. loss   | in air                               | °F (°C)                     | 707 (375)                   |
| Thermal Decomposition TGA               | 1% wt. loss   | in nitrogen                          | °F (°C)                     | 770 (410)                   |
| Burning Rate                            | UL            | Bulletin 94                          | -                           | V - O                       |
| <u>MECHANICAL PROPERTIES</u>            |               |                                      |                             |                             |
| Tensile Yield Strength                  | D638          | 73°F (23°C)                          | psi (MPa)                   | 1,700 – 2,800 (12 – 19)     |
| Tensile Break Strength                  | D638          | 73°F (23°C)                          | psi                         | 2,000 – 4,500 (14 – 24)     |
| Tensile Break Elongation                | D638          | 73°F (23°C)                          | %                           | 500 - 800                   |
| Tensile Modulus                         | D638          | 73°F (23°C)                          | psi (MPa)                   | 35,000 – 55,000 (241 – 379) |
| Flexural Strength @ 5% Strain           | D790          | 73°F (23°C)                          | psi (MPa)                   | 1,500 – 2,500 (10 – 17)     |
| Flexural Modulus                        | D790          | 73°F (23°C)                          | psi (MPa)                   | 28,000 – 40,000 (192 – 276) |
| Compressive Strength                    | D695          | 73°F (23°C)                          | psi (MPa)                   | 2,000 – 3,000 (14 – 20)     |
| Impact Strength Notched Izod            | D256          | 73°F (23°C)                          | ft-lb/in                    | No Break                    |
| Impact Strength Unnotched Izod          | D256          | 73°F (23°C)                          | ft-lb/in                    | No Break                    |
| Hardness                                | D2240         | 73°F (23°C)                          | Shore D                     | 55 - 60                     |
| <u>ELECTRICAL PROPERTIES</u>            |               |                                      |                             |                             |
| Volume Resistivity                      | D257          | DC 68°F (20°C) 65% R.H.              | ohm-cm                      | 2 x 10 <sup>14</sup>        |
| Dielectric Constant 73°F                | D150          | 100 Hz – 100 Hz                      | -                           | 4.5 – 13.5                  |
| Dissipation Factor 73°C                 | D150          | 100 Hz                               | -                           | 0.05 – 0.29                 |

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