

## Technical Data Sheet

### RW *Polyflam* RMMK 125 WHITE

Acrylonitrile Butadiene Styrene + PA

#### Product Description

Flame-retardant ABS/PA blend; without PBDE; high stress crack resistance

|                          |                                                      |
|--------------------------|------------------------------------------------------|
| <b>Processing Method</b> | Injection Molding                                    |
| <b>Attribute</b>         | High ESCR (Environmental Stress Cracking Resistance) |
| <b>Additive</b>          | Flame Retardant                                      |

| Typical Properties                               | Nominal Value | Units                   | Test Method    |
|--------------------------------------------------|---------------|-------------------------|----------------|
| <b>Physical</b>                                  |               |                         |                |
| Melt Volume Flow Rate, (250 °C/5.0 kg)           | 12            | cm <sup>3</sup> /10 min | ISO 1133       |
| Density, (Method A)                              | 1.30          | g/cm <sup>3</sup>       | ISO 1183       |
| <b>Mechanical</b>                                |               |                         |                |
| Tensile Stress at Yield                          |               |                         |                |
| (Type 1A, 50 mm/min)                             | 52.0          | MPa                     | ISO 527-2      |
| (Type 1A, 50 mm/min) - Conditioned               | 29.0          | MPa                     | ISO 527-2      |
| Tensile Strain at Yield                          |               |                         |                |
| (Type 1A, 50 mm/min)                             | 3.0           | %                       | ISO 527-2      |
| (Type 1A, 50 mm/min) - Conditioned               | 16            | %                       | ISO 527-2      |
| Tensile Modulus                                  |               |                         |                |
| (1 mm/min, Type 1A)                              | 2500          | MPa                     | ISO 527-1      |
| (1 mm/min, Type 1A) - Conditioned                | 940           | MPa                     | ISO 527-1      |
| <b>Impact</b>                                    |               |                         |                |
| Charpy Impact Strength - Notched                 |               |                         |                |
| (23 °C, Type 1, Edgewise, Notch A)               | 12            | kJ/m <sup>2</sup>       | ISO 179        |
| (-30 °C, Type 1, Edgewise, Notch A)              | 9.0           | kJ/m <sup>2</sup>       | ISO 179        |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 21            | kJ/m <sup>2</sup>       | ISO 179        |
| Charpy Impact Strength - Unnotched               |               |                         |                |
| (23 °C, Type 1, Edgewise)                        | No Break      |                         | ISO 179        |
| (-30 °C, Type 1, Edgewise)                       | No Break      |                         | ISO 179        |
| (23 °C, Type 1, Edgewise) - Conditioned          | No Break      |                         | ISO 179        |
| (-30 °C, Type 1, Edgewise) - Conditioned         | No Break      |                         | ISO 179        |
| <b>Hardness</b>                                  |               |                         |                |
| Ball Pressure Test, (125 °C)                     | Pass          |                         | IEC 60695-10-2 |
| <b>Thermal</b>                                   |               |                         |                |

|                                                                     |          |        |                      |
|---------------------------------------------------------------------|----------|--------|----------------------|
| Vicat Softening Temperature                                         |          |        |                      |
| (B (50N), 50 °C/h)                                                  | 156      | °C     | ISO 306              |
| (A (10N), 50 °C/h)                                                  | 190      | °C     | ISO 306              |
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 113      | °C     | ISO 75-2/B           |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 60.0     | °C     | ISO 75-2/A           |
| RTI Elec                                                            |          |        |                      |
| (1.5 mm)                                                            | 60.0     | °C     | UL 746B              |
| (3.0 mm)                                                            | 60.0     | °C     | UL 746B              |
| RTI Imp                                                             |          |        |                      |
| (1.5 mm)                                                            | 60.0     | °C     | UL 746B              |
| (3.0 mm)                                                            | 60.0     | °C     | UL 746B              |
| RTI Str                                                             |          |        |                      |
| (1.5 mm)                                                            | 60.0     | °C     | UL 746B              |
| (3.0 mm)                                                            | 60.0     | °C     | UL 746B              |
| <b>Electrical</b>                                                   |          |        |                      |
| Volume Resistivity                                                  | >1.0E+13 | ohm*m  | IEC 62631-3-1        |
| Comparative Tracking Index (CTI)                                    | 200      | V      | IEC 60112            |
| Surface Resistivity                                                 | >1.0E+15 | ohm    | IEC 60093            |
| <b>Flammable</b>                                                    |          |        |                      |
| Burning Rate                                                        |          |        |                      |
| (2.00 mm, Self-Extinguishing)                                       | 0.0      | mm/min | FMVSS 302            |
| (2.00 mm, Self-Extinguishing)                                       | 0.0      | mm/min | ISO 3795             |
| Glow Wire Flammability Index                                        |          |        |                      |
| (0.75 mm)                                                           | 960      | °C     | IEC 60695-2-12       |
| (1.5 mm)                                                            | 960      | °C     | IEC 60695-2-12       |
| (3.0 mm)                                                            | 960      | °C     | IEC 60695-2-12       |
| Glow Wire Ignition Temperature                                      |          |        |                      |
| (1.5 mm)                                                            | 750      | °C     | IEC 60695-2-13       |
| (3.0 mm)                                                            | 750      | °C     | IEC 60695-2-13       |
| Oxygen Index                                                        | 31       | %      | ISO 4589-2           |
| <b>UL Information</b>                                               |          |        |                      |
| Flame Rating                                                        |          |        |                      |
| (1.5 mm)                                                            | V-0      |        | UL 94                |
| (3.0 mm)                                                            | V-0      |        | UL 94                |
| (2.0 mm)                                                            | 5VA      |        | UL 94                |
| Flammability Classification                                         |          |        |                      |
| (1.5 mm)                                                            | V-0      |        | IEC 60695-11-10, -20 |
| (2.0 mm)                                                            | 5VA      |        | IEC 60695-11-10, -20 |
| (3.0 mm)                                                            | V-0      |        | IEC 60695-11-10, -20 |
| UL File Number                                                      | E86615   |        |                      |

| Injection Parameters   | Nominal Value | Units  |
|------------------------|---------------|--------|
| Drying Time            | 4.0 to 6.0    | hr     |
| Drying Temperature     | 70 to 80      | °C     |
| Suggested Max Moisture | 0.040 to 0.10 | %      |
| Screw Speed            | <250          | mm/sec |
| Processing (Melt) Temp | 240 to 260    | °C     |
| Injection Rate         | Slow-Moderate |        |
| Back Pressure          | 5.00 to 10.0  | MPa    |
| Mold Temperature       | 40 to 80      | °C     |