

## Technical Data Sheet

### *Schulblend* M/MW NC100 SOUL SF K2083



Acrylonitrile Styrene Acrylate + PA

#### Product Description

Nanocomposite based on ASA/PA-blend for high dimensional stability

**Processing Method** Injection Molding

**Attribute** Good Dimensional Stability

| Typical Properties                               | Nominal Value | Units                   | Test Method |
|--------------------------------------------------|---------------|-------------------------|-------------|
| <b>Physical</b>                                  |               |                         |             |
| Melt Volume Flow Rate, (250 °C/5.0 kg)           | 6.0           | cm <sup>3</sup> /10 min | ISO 1133    |
| Density, (Method A)                              | 1.18          | g/cm <sup>3</sup>       | ISO 1183    |
| <b>Mechanical</b>                                |               |                         |             |
| Tensile Stress at Yield                          |               |                         |             |
| (Type 1A, 50 mm/min)                             | 51.0          | MPa                     | ISO 527-2   |
| (Type 1A, 50 mm/min) - Conditioned               | 34.0          | MPa                     | ISO 527-2   |
| Tensile Strain at Yield                          |               |                         |             |
| (Type 1A, 50 mm/min)                             | 3.1           | %                       | ISO 527-2   |
| (Type 1A, 50 mm/min) - Conditioned               | 4.7           | %                       | ISO 527-2   |
| Tensile Modulus                                  |               |                         |             |
| (1 mm/min, Type 1A)                              | 3100          | MPa                     | ISO 527-1   |
| (1 mm/min, Type 1A) - Conditioned                | 1900          | MPa                     | ISO 527-1   |
| <b>Impact</b>                                    |               |                         |             |
| Charpy Impact Strength - Notched                 |               |                         |             |
| (23 °C, Type 1, Edgewise, Notch A)               | 10            | kJ/m <sup>2</sup>       | ISO 179     |
| (-30 °C, Type 1, Edgewise, Notch A)              | 4.0           | kJ/m <sup>2</sup>       | ISO 179     |
| (23 °C, Type 1, Edgewise, Notch A) - Conditioned | 19            | 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)                       | 75            | kJ/m <sup>2</sup>       | ISO 179     |
| (23 °C, Type 1, Edgewise) - Conditioned          | No Break      |                         | ISO 179     |
| <b>Hardness</b>                                  |               |                         |             |
| Ball Indentation Hardness, (H 358/10)            | 101           | MPa                     | ISO 2039-1  |
| <b>Thermal</b>                                   |               |                         |             |
| Vicat Softening Temperature                      |               |                         |             |
| (B (50N), 50 °C/h)                               | 110           | °C                      | ISO 306     |
| (A (10N), 50 °C/h)                               | 184           | °C                      | ISO 306     |

|                                                                     |           |                      |
|---------------------------------------------------------------------|-----------|----------------------|
| Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise) | 96.0 °C   | ISO 75-2/B           |
| Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise) | 78.0 °C   | ISO 75-2/A           |
| <b>Flammable</b>                                                    |           |                      |
| Burning Rate, (2.00 mm)                                             | 30 mm/min | ISO 3795             |
| Glow Wire Flammability Index                                        |           |                      |
| (1.5 mm)                                                            | 675 °C    | IEC 60695-2-12       |
| (3.0 mm)                                                            | 675 °C    | IEC 60695-2-12       |
| Glow Wire Ignition Temperature                                      |           |                      |
| (1.5 mm)                                                            | 700 °C    | IEC 60695-2-13       |
| (3.0 mm)                                                            | 700 °C    | IEC 60695-2-13       |
| <b>UL Information</b>                                               |           |                      |
| Flammability Classification                                         |           |                      |
| (1.5 mm)                                                            | HB        | IEC 60695-11-10, -20 |
| (3.0 mm)                                                            | HB        | IEC 60695-11-10, -20 |