

Technical Data Sheet

**Alcryn® ALR 7225**

Melt Processable Rubber  
Engineering Plastics



**Product Description**

Alcryn® ALR 7225 MPR has improved heat resistance over standard Alcryn grades and has an upper temperature limit of 136°C, while retaining at least 85% of original tensile properties. ALR 7225 is designed for the extrusion process, specifically Wire & Cable applications and should be considered where increased temperature resistance is required.

**General**

|                   |                             |
|-------------------|-----------------------------|
| Features          | • High Heat Resistance      |
| Uses              | • Wire & Cable Applications |
| Agency Ratings    | • EU 2002/96/EC (WEEE)      |
| RoHS Compliance   | • RoHS Compliant            |
| Forms             | • Pellets                   |
| Processing Method | • Extrusion                 |

| Physical                   | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|----------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity |                         |                        |             |
| --                         | 1.30                    | 1.30 g/cm <sup>3</sup> | ASTM D792   |
| --                         | 1.30 g/cm <sup>3</sup>  | 1.30 g/cm <sup>3</sup> | ISO 1183    |

| Elastomers                               | Nominal Value (English) | Nominal Value (SI) | Test Method         |
|--|-------------------------|--------------------|---------------------|
| Tensile Stress (100% Strain)             | 703 psi                 | 4.85 MPa           | ASTM D412<br>ISO 37 |
| Tensile Stress (Yield)                   | 1400 psi                | 9.64 MPa           | ISO 37              |
| Tensile Elongation (Break)               | 370 %                   | 370 %              | ASTM D412<br>ISO 37 |
| Tear Strength <sup>1</sup> (75°F (24°C)) | 227 lbf/in              | 39.8 kN/m          | ASTM D624           |
| Compression Set                          |                         |                    |                     |
| 75°F (24°C), 22 hr                       | 32 %                    | 32 %               | ASTM D395B          |
| 158°F (70°C), 22 hr                      | 73 %                    | 73 %               | ASTM D395B          |
| 75°F (24°C), 22 hr <sup>2</sup>          | 32 %                    | 32 %               | ISO 815             |
| 158°F (70°C), 22 hr <sup>2</sup>         | 73 %                    | 73 %               | ISO 815             |

| Hardness                     | Nominal Value (English) | Nominal Value (SI) | Test Method           |
|------------------------------|-------------------------|--------------------|-----------------------|
| Durometer Hardness (Shore A) | 82                      | 82                 | ASTM D2240<br>ISO 868 |

| Electrical              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------|-------------------------|--------------------|-------------|
| Surface Resistivity     | 7.3E+11 ohms            | 7.3E+11 ohms       | ASTM D257   |
| Volume Resistivity      | 4.4E+11 ohms·cm         | 4.4E+11 ohms·cm    | ASTM D257   |
| Dielectric Strength     |                         |                    | ASTM D149   |
| 7.50E-5 in (0.00191 mm) | 11 V/mil                | 0.45 kV/mm         |             |

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### Additional Information

The value listed as Specific Gravity, ASTM D792, was tested in accordance with ASTM D471.

The value listed as Density, ISO 1183, was tested in accordance with ISO 2781.

The value listed as Shore Hardness, ISO 868, was tested in accordance with ISO 48.

Permanent Set (Tension), ASTM D412: 15%

100% Modulus, ASTM D412, ISO 37, Physical Retention After 7 Days at 277°F: 117%

Tensile Strength, ASTM D412, ISO 37, DIN 53504, Physical Retention After 7 Days at 277°F: 99%

Elongation At Break, ASTM D412, ISO 37, Physical Retention After 7 Days at 277°F: 131%

Viscosity, ASTM D3835, 300 s<sup>-1</sup> at 374°F: 628 Pa\*s

Typical Processing Temperature: 350° F

Clash-Berg Stiffness Temperature, ASTM D1043, 10000 psi: -19° C

Volume Change, After 7 days, 100°C, Water: 34%

Volume Change, After 7 days, 24°C, Fuel B: 36%

Volume Change, After 7 days, 100°C, ASTM #1 Oil: -7%

Volume Change, After 7 days, 100°C, IRM 903 Oil: 28%

Volume Change, After 4 days, 100°C, ASTM #2 Oil: 9%

Weight Change, After 7 days, 100°C, Water: 25%

Weight Change, After 7 days, 24°C, Fuel B: 18%

Weight Change, After 7 days, 100°C, ASTM #1 Oil: -6%

Weight Change, After 7 days, 100°C, IRM 903 Oil: 18%

Weight Change, After 4 days, 100°C, ASTM #2 Oil: 6%

### Notes

<sup>1</sup> Die C

<sup>2</sup> Type B

### Notes

These are typical property values not to be construed as specification limits.