

## Technical Data Sheet



# Ronfalin ABS 1443 LE

Acrylonitrile Butadiene Styrene  
LyondellBasell Industries  
Engineering Plastics

### Product Description

Low Emission ABS compound with increased heat distortion temperature and impact strength. Available with and without UV-stabilization. (Former name: POLYMAN ABS M/Hi W LE UV)

### General

|                     |                                          |                             |  |
|---------------------|------------------------------------------|-----------------------------|--|
| Material Status     | • Commercial: Active                     |                             |  |
| Availability        | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America |  |
| Features            | • Good Flow                              |                             |  |
| Processing Method   | • Injection Molding                      |                             |  |
| Resin ID (ISO 1043) | • ABS                                    |                             |  |

| Physical                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
|---------------------------------------------|---------------------------|---------------------------|-----------------|
| Density                                     | 1.05 g/cm <sup>3</sup>    | 1.05 g/cm <sup>3</sup>    | ISO 1183/A      |
| Melt Volume-Flow Rate (MVR) (220°C/10.0 kg) | 17 cm <sup>3</sup> /10min | 17 cm <sup>3</sup> /10min | ISO 1133        |
| VOC Content                                 | < 50.0µgC/g               | < 50.0µgC/g               | VDA 277         |
| Mechanical                                  | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Tensile Modulus                             | 334000 psi                | 2300 MPa                  | ISO 527-1/1A/1  |
| Tensile Stress                              |                           |                           | ISO 527-2/1A/50 |
| Yield                                       | 6240 psi                  | 43.0 MPa                  |                 |
| Break                                       | 5220 psi                  | 36.0 MPa                  |                 |
| Tensile Strain (Yield)                      | 2.9 %                     | 2.9 %                     | ISO 527-2/1A/50 |
| Nominal Tensile Strain at Break             | 12 %                      | 12 %                      | ISO 527-2/1A/50 |
| Flexural Modulus <sup>1</sup>               | 377000 psi                | 2600 MPa                  | ISO 178         |
| Flexural Stress <sup>1</sup> (4.6% Strain)  | 10700 psi                 | 74.0 MPa                  | ISO 178         |
| Impact                                      | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Charpy Notched Impact Strength              |                           |                           | ISO 179/1eA     |
| -22°F (-30°C)                               | 3.8 ft·lb/in <sup>2</sup> | 8.0 kJ/m <sup>2</sup>     |                 |
| 73°F (23°C)                                 | 10 ft·lb/in <sup>2</sup>  | 22 kJ/m <sup>2</sup>      |                 |
| Charpy Unnotched Impact Strength            |                           |                           | ISO 179/1eU     |
| -22°F (-30°C)                               | No Break                  | No Break                  |                 |
| 73°F (23°C)                                 | No Break                  | No Break                  |                 |
| Hardness                                    | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Ball Indentation Hardness (H 358/30)        | 15100 psi                 | 104 MPa                   | ISO 2039-1      |
| Thermal                                     | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Deflection Temperature Under Load           |                           |                           |                 |
| 66 psi (0.45 MPa), Unannealed               | 198 °F                    | 92.0 °C                   | ISO 75-2/Bf     |
| 264 psi (1.8 MPa), Unannealed               | 183 °F                    | 84.0 °C                   | ISO 75-2/Af     |
| Vicat Softening Temperature                 |                           |                           |                 |
| --                                          | 216 °F                    | 102 °C                    | ISO 306/B50     |
| --                                          | 234 °F                    | 112 °C                    | ISO 306/A50     |
| Electrical                                  | Nominal Value (English)   | Nominal Value (SI)        | Test Method     |
| Surface Resistivity                         | > 1.0E+15 ohms            | > 1.0E+15 ohms            | IEC 60093       |
| Volume Resistivity                          | > 1.0E+13 ohms·m          | > 1.0E+13 ohms·m          | IEC 62631-3-1   |
| Comparative Tracking Index (Solution A)     | 600 V                     | 600 V                     | IEC 60112       |

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| Flammability                   | Nominal Value (English) | Nominal Value (SI) | Test Method          |
|--------------------------------|-------------------------|--------------------|----------------------|
| Burning Rate                   |                         |                    |                      |
| 0.0787 in (2.00 mm)            | < 3.9 in/min            | < 100 mm/min       | ISO 3795             |
| 0.0787 in (2.00 mm)            | < 3.9 in/min            | < 100 mm/min       | FMVSS 302            |
| Flammability Classification    |                         |                    | IEC 60695-11-10, -20 |
| 0.06 in (1.5 mm)               | HB                      | HB                 |                      |
| 0.12 in (3.0 mm)               | HB                      | HB                 |                      |
| Glow Wire Ignition Temperature |                         |                    | IEC 60695-2-13       |
| 0.06 in (1.5 mm)               | 1290 °F                 | 700 °C             |                      |
| 0.12 in (3.0 mm)               | 1290 °F                 | 700 °C             |                      |

**Additional Information**

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80 °C              |
| Drying Time            | 2.0 to 4.0 hr           | 2.0 to 4.0 hr      |
| Processing (Melt) Temp | 446 to 482 °F           | 230 to 250 °C      |
| Mold Temperature       | 104 to 176 °F           | 40 to 80 °C        |

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### Notes

<sup>1</sup> 0.079 in/min (2.0 mm/min)

### Notes

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

### Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

### Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

### Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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