

Technical Data Sheet

# Centrex 485CS

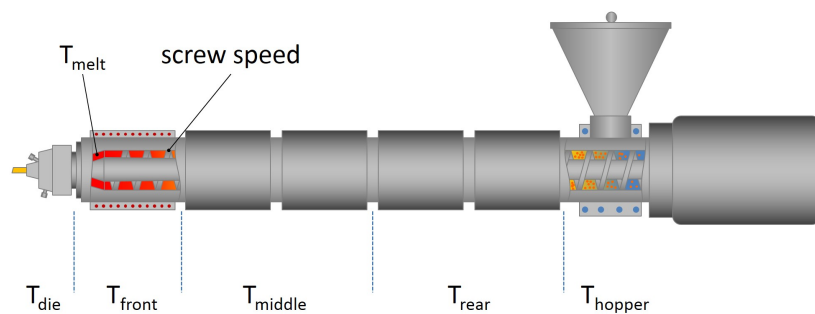
Acrylonitrile Styrene Acrylate  
LyondellBasell Industries  
Engineering Plastics

| General                                           |                                                                                                                                                                                                                     |                    |             |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|
| Features                                          | <ul style="list-style-type: none"><li>• Good Melt Strength</li><li>• Good Weather Resistance</li><li>• Low Gloss</li><li>• Medium Impact Resistance</li><li>• UV Resistant</li></ul>                                |                    |             |
| Uses                                              | <ul style="list-style-type: none"><li>• Automotive Applications</li><li>• Automotive Exterior Parts</li><li>• Automotive Exterior Trim</li><li>• Automotive Interior Parts</li><li>• Outdoor Applications</li></ul> |                    |             |
| Agency Ratings                                    | <ul style="list-style-type: none"><li>• EC 1907/2006 (REACH)</li><li>• EU 2002/96/EC (WEEE)</li></ul>                                                                                                               |                    |             |
| RoHS Compliance                                   | <ul style="list-style-type: none"><li>• RoHS Compliant</li></ul>                                                                                                                                                    |                    |             |
| UL File NumberUsa                                 | <ul style="list-style-type: none"><li>• E150937</li></ul>                                                                                                                                                           |                    |             |
| Forms                                             | <ul style="list-style-type: none"><li>• Pellets</li></ul>                                                                                                                                                           |                    |             |
| Processing Method                                 | <ul style="list-style-type: none"><li>• Coextrusion</li><li>• Extrusion</li><li>• Thermoforming</li></ul>                                                                                                           |                    |             |
| Physical                                          | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Density / Specific Gravity                        |                                                                                                                                                                                                                     |                    |             |
| --                                                | 1.06                                                                                                                                                                                                                | 1.06 g/cm³         | ASTM D792   |
| 73°F (23°C)                                       | 1.07 g/cm³                                                                                                                                                                                                          | 1.07 g/cm³         | ISO 1183/A  |
| Melt Mass-Flow Rate (MFR)                         |                                                                                                                                                                                                                     |                    |             |
| 220°C/10.0 Kg                                     | 5.0 g/10 min                                                                                                                                                                                                        | 5.0 g/10 min       | ASTM D1238  |
| 220°C/10.0 Kg                                     | 6.1 g/10 min                                                                                                                                                                                                        | 6.1 g/10 min       | ISO 1133    |
| Mechanical                                        | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Tensile Modulus <sup>1</sup>                      | 210000 psi                                                                                                                                                                                                          | 1450 MPa           | ASTM D638   |
| Tensile Strength <sup>1</sup> (Yield)             | 3850 psi                                                                                                                                                                                                            | 26.5 MPa           | ASTM D638   |
| Flexural Modulus - Tangent <sup>2</sup>           | 200000 psi                                                                                                                                                                                                          | 1380 MPa           | ASTM D790   |
| Flexural Strength <sup>2</sup>                    | 5600 psi                                                                                                                                                                                                            | 38.6 MPa           | ASTM D790   |
| Impact                                            | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Notched Izod Impact                               |                                                                                                                                                                                                                     |                    | ASTM D256   |
| -40°F (-40°C), 0.125 In (3.18 Mm)                 | 0.80 ft·lb/in                                                                                                                                                                                                       | 43 J/m             |             |
| 0°F (-18°C), 0.125 In (3.18 Mm)                   | 1.2 ft·lb/in                                                                                                                                                                                                        | 64 J/m             |             |
| 73°F (23°C), 0.125 In (3.18 Mm)                   | 2.4 ft·lb/in                                                                                                                                                                                                        | 130 J/m            |             |
| Instrumented Dart Impact                          |                                                                                                                                                                                                                     |                    | ASTM D3763  |
| -22°F (-30°C), Total Energy                       | 53.1 in·lb                                                                                                                                                                                                          | 6.00 J             |             |
| 0°F (-18°C), Total Energy                         | 142 in·lb                                                                                                                                                                                                           | 16.0 J             |             |
| 73°F (23°C), Total Energy                         | 212 in·lb                                                                                                                                                                                                           | 24.0 J             |             |
| Hardness                                          | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Rockwell Hardness (R-scale)                       | 69                                                                                                                                                                                                                  | 69                 | ASTM D785   |
| Thermal                                           | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Deflection Temperature Under Load                 |                                                                                                                                                                                                                     |                    | ASTM D648   |
| 264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm) | 155 °F                                                                                                                                                                                                              | 68.3 °C            |             |
| Vicat Softening Temperature                       | 212 °F                                                                                                                                                                                                              | 100 °C             | ASTM D1525  |
| CLTE - Flow                                       | 5.2E-5 in/in/°F                                                                                                                                                                                                     | 9.4E-5 cm/cm/°C    | ASTM D696   |
| Flammability                                      | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Flame Rating (0.06 In (1.5 Mm))                   | HB                                                                                                                                                                                                                  | HB                 | UL 94       |
| Optical                                           | Nominal Value (English)                                                                                                                                                                                             | Nominal Value (SI) | Test Method |
| Gloss                                             |                                                                                                                                                                                                                     |                    | ASTM D523   |
| 60° <sup>3</sup>                                  | 20                                                                                                                                                                                                                  | 20                 |             |
| 60° <sup>4</sup>                                  | 10                                                                                                                                                                                                                  | 10                 |             |

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| Extrusion              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 180 to 200 °F           | 82 to 93 °C        |
| Drying Time            | 3.0 to 4.0 hr           | 3.0 to 4.0 hr      |
| Suggested Max Moisture | < 0.03 %                | < 0.03 %           |
| Suggested Max Regrind  | 40 %                    | 40 %               |
| Melt Temperature       | 400 to 470 °F           | 204 to 243 °C      |
| Die Temperature        | 410 to 465 °F           | 210 to 241 °C      |

### Extrusion Notes

Polish roll Top: Down stack 200°F, Up stack 200°F  
Polish roll Middle: Down stack 165°F, Up stack 190°F  
Polish roll Bottom: Down stack 200°F, Up stack 180°F

### Notes

<sup>1</sup> 0.20 in/min (5.1 mm/min)

<sup>2</sup> 0.050 in/min (1.3 mm/min)

<sup>3</sup> Sheet

<sup>4</sup> Formed

### Notes

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