

# Centrex 833A

Acrylonitrile Styrene Acrylate + AES

LyondellBasell Industries

Engineering Plastics

| General           |                                                                                                       |                                                                                              |                                                                          |
|-------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Features          | <ul style="list-style-type: none"> <li>Good Melt Strength</li> <li>Good Weather Resistance</li> </ul> | <ul style="list-style-type: none"> <li>High Gloss</li> <li>High Impact Resistance</li> </ul> | <ul style="list-style-type: none"> <li>UV Resistant</li> </ul>           |
| Uses              | <ul style="list-style-type: none"> <li>Marine Applications</li> <li>Outdoor Applications</li> </ul>   | <ul style="list-style-type: none"> <li>Sheet</li> <li>Spas</li> </ul>                        | <ul style="list-style-type: none"> <li>Water Sports Equipment</li> </ul> |
| Agency Ratings    | <ul style="list-style-type: none"> <li>EC 1907/2006 (REACH)</li> </ul>                                | <ul style="list-style-type: none"> <li>EU 2002/96/EC (WEEE)</li> </ul>                       | <ul style="list-style-type: none"> <li>UL 94 HB</li> </ul>               |
| RoHS Compliance   | <ul style="list-style-type: none"> <li>RoHS Compliant</li> </ul>                                      |                                                                                              |                                                                          |
| UL File Number    | <ul style="list-style-type: none"> <li>E51193</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> </ul>                      | <ul style="list-style-type: none"> <li>Profile Extrusion</li> <li>Thermoforming</li> </ul>   |                                                                          |

| Physical                                          | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|---------------------------------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity                        | 1.05                    | 1.05 g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR)                         |                         |                        | ASTM D1238  |
| 220°C/10.0 Kg                                     | 10 g/10 min             | 10 g/10 min            |             |
| 230°C/3.8 Kg                                      | 1.2 g/10 min            | 1.2 g/10 min           |             |
| Outdoor Suitability (All Colors)                  | f2                      | f2                     | UL 746C     |
| Mechanical                                        | Nominal Value (English) | Nominal Value (SI)     | Test Method |
| Tensile Modulus <sup>1</sup>                      | 295000 psi              | 2030 MPa               | ASTM D638   |
| Tensile Strength <sup>1</sup> (Yield)             | 5100 psi                | 35.2 MPa               | ASTM D638   |
| Tensile Elongation <sup>1</sup> (Yield)           | 2.4 %                   | 2.4 %                  | ASTM D638   |
| Flexural Modulus - Tangent <sup>2</sup>           | 250000 psi              | 1720 MPa               | ASTM D790   |
| Flexural Strength <sup>2</sup>                    | 5200 psi                | 35.9 MPa               | ASTM D790   |
| Impact                                            | Nominal Value (English) | Nominal Value (SI)     | Test Method |
| Notched Izod Impact                               |                         |                        | ASTM D256   |
| -22°F (-30°C), 0.125 In (3.18 Mm)                 | 2.4 ft·lb/in            | 130 J/m                |             |
| 0°F (-18°C), 0.125 In (3.18 Mm)                   | 2.9 ft·lb/in            | 150 J/m                |             |
| 73°F (23°C), 0.125 In (3.18 Mm)                   | 9.2 ft·lb/in            | 490 J/m                |             |
| 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) | 159 °F                  | 70.5 °C                |             |
| CLTE                                              |                         |                        | ASTM D696   |
| Flow : -40 To 104°F (-40 To 40°C)                 | 5.1E-5 in/in/°F         | 9.2E-5 cm/cm/°C        |             |
| Transverse : -40 To 104°F (-40 To 40°C)           | 9.6E-5 in/in/°F         | 1.7E-4 cm/cm/°C        |             |
| RTI Elec                                          |                         |                        | UL 746B     |
| 0.06 In (1.5 Mm)                                  | 122 °F                  | 50.0 °C                |             |
| 0.12 In (3.0 Mm)                                  | 122 °F                  | 50.0 °C                |             |
| RTI Imp                                           |                         |                        | UL 746B     |
| 0.06 In (1.5 Mm)                                  | 122 °F                  | 50.0 °C                |             |
| 0.12 In (3.0 Mm)                                  | 122 °F                  | 50.0 °C                |             |
| RTI Str                                           |                         |                        | UL 746B     |
| 0.06 In (1.5 Mm)                                  | 122 °F                  | 50.0 °C                |             |
| 0.12 In (3.0 Mm)                                  | 122 °F                  | 50.0 °C                |             |



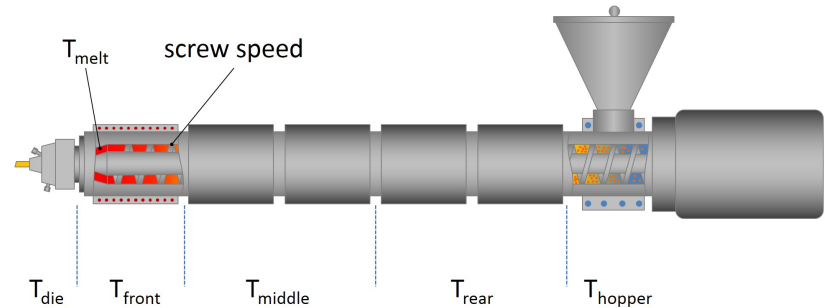
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| Flammability                                | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------------------------------|-------------------------|--------------------|-------------|
| Flame Rating                                |                         |                    | UL 94       |
| 0.06 In (1.5 Mm), All Colors                | HB                      | HB                 |             |
| 0.12 In (3.0 Mm), All Colors                | HB                      | HB                 |             |
| Optical                                     | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Gloss (60°, High Gloss Surface, Untextured) | 90 to 100               | 90 to 100          | ASTM D2457  |

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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 | 0.02 %                  | 0.02 %             |
| Suggested Max Regrind  | 40 %                    | 40 %               |
| Melt Temperature       | 410 to 465 °F           | 210 to 241 °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)

Notes

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