

# VYTEEN ABS 2904

Acrylonitrile Butadiene Styrene

Lavergne Group

## Message:

Vyteen ABS 2904 is a black recycled ABS high impact high flow terpolymer with balanced impact/stiffness properties designed for injection molding applications

Features

- Excellent resilience
- Good processability
- High Stiffness

Typical Applications

- Automotive MS DB200 compliance
- Appliances housing
- Electrical components

| General Information         |                                 |                   |             |
|-----------------------------|---------------------------------|-------------------|-------------|
| Features                    | Rigidity, high                  |                   |             |
|                             | Impact resistance, high         |                   |             |
|                             | Workability, good               |                   |             |
|                             | High liquidity                  |                   |             |
|                             | Terpolymer                      |                   |             |
|                             | Elastic                         |                   |             |
| Uses                        | Home appliance components       |                   |             |
|                             | Application in Automobile Field |                   |             |
|                             | Shell                           |                   |             |
| Appearance                  | Black                           |                   |             |
| Processing Method           | Injection molding               |                   |             |
| Physical                    | Nominal Value                   | Unit              | Test Method |
| Specific Gravity            |                                 |                   |             |
| --                          | 1.05                            | g/cm <sup>3</sup> | ASTM D792   |
| 23°C                        | 1.05                            | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR)   |                                 |                   |             |
| 200°C/5.0 kg                | 7.0                             | g/10 min          | ASTM D1238  |
| 230°C/3.8 kg                | 7.0                             | g/10 min          | ISO 1133    |
| Molding Shrinkage           |                                 |                   | ASTM D955   |
| Flow                        | 0.50                            | %                 | ASTM D955   |
| Transverse flow             | 0.50                            | %                 | ASTM D955   |
| Hardness                    | Nominal Value                   | Unit              | Test Method |
| Rockwell Hardness (R-Scale) | 85                              |                   | ASTM D785   |
| Mechanical                  | Nominal Value                   | Unit              | Test Method |
| Tensile Modulus             | 2000                            | MPa               | ISO 527-2/1 |

|                                                 |               |                   |              |
|-------------------------------------------------|---------------|-------------------|--------------|
| Tensile Strength                                |               |                   |              |
| Yield <sup>1</sup>                              | 36.0          | MPa               | ASTM D638    |
| Yield                                           | 35.0          | MPa               | ISO 527-2/50 |
| Flexural Modulus                                |               |                   |              |
| -- <sup>2</sup>                                 | 2100          | MPa               | ASTM D790    |
| -- <sup>3</sup>                                 | 2200          | MPa               | ISO 178      |
| Flexural Strength                               |               |                   |              |
| -- <sup>4</sup>                                 | 62.0          | MPa               | ASTM D790    |
| -- <sup>5</sup>                                 | 58.0          | MPa               | ISO 178      |
| Impact                                          | Nominal Value | Unit              | Test Method  |
| Charpy Notched Impact Strength                  |               |                   | ISO 179/eA   |
| -30°C                                           | 7.0           | kJ/m <sup>2</sup> | ISO 179/eA   |
| 23°C                                            | 15            | kJ/m <sup>2</sup> | ISO 179/eA   |
| Notched Izod Impact (23°C)                      | 170           | J/m               | ASTM D256    |
| Dart Drop Impact                                |               |                   | ASTM D5420   |
| -29°C                                           | 4.00          | J                 | ASTM D5420   |
| 23°C                                            | 15.0          | J                 | ASTM D5420   |
| Thermal                                         | Nominal Value | Unit              | Test Method  |
| Heat Deflection Temperature                     |               |                   |              |
| 0.45 MPa, not annealed                          | 90.0          | °C                | ISO 75-2/B   |
| 1.8 MPa, not annealed                           | 80.0          | °C                | ASTM D648    |
| Vicat Softening Temperature                     | 86.0          | °C                | ISO 306/B50  |
| Flammability                                    | Nominal Value | Unit              | Test Method  |
| Burning Rate                                    | 45            | mm/min            | SAE J369     |
| Injection                                       | Nominal Value | Unit              |              |
| Drying Temperature                              | 80.0          | °C                |              |
| Drying Time                                     | 1.0 - 2.0     | hr                |              |
| Suggested Max Moisture                          | 0.30          | %                 |              |
| Rear Temperature                                | 185 - 195     | °C                |              |
| Middle Temperature                              | 200 - 210     | °C                |              |
| Front Temperature                               | 220 - 240     | °C                |              |
| Nozzle Temperature                              | 230 - 240     | °C                |              |
| Processing (Melt) Temp                          | 220 - 235     | °C                |              |
| Mold Temperature                                | 50.0 - 70.0   | °C                |              |
| Injection Rate                                  | Moderate-Fast |                   |              |
| Screw Speed                                     | 60 - 90       | rpm               |              |
| Injection instructions                          |               |                   |              |
| Injection Pressure: MediumBack Pressure: Medium |               |                   |              |
| NOTE                                            |               |                   |              |
| 1.                                              | 50 mm/min     |                   |              |
| 2.                                              | 1.3 mm/min    |                   |              |
| 3.                                              | 2.0 mm/min    |                   |              |

|    |            |
|----|------------|
| 4. | 1.3 mm/min |
| 5. | 2.0 mm/min |

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