

# Hytrel® 3078FG

THERMOPLASTIC POLYESTER ELASTOMER

DuPont Performance Polymers

Message:

30 Shore D High Performance Polyester Elastomer Developed for Food Contact Applications

| General Information                         |                                                  |                        |             |
|---------------------------------------------|--------------------------------------------------|------------------------|-------------|
| UL YellowCard                               | E41938-100907527                                 |                        |             |
| Uses                                        | Blow Molding Applications                        |                        |             |
|                                             | Film                                             |                        |             |
|                                             | Profiles                                         |                        |             |
|                                             | Sheet                                            |                        |             |
| Forms                                       | Pellets                                          |                        |             |
| Processing Method                           | Blow Molding                                     |                        |             |
|                                             | Calendering                                      |                        |             |
|                                             | Casting                                          |                        |             |
|                                             | Coating                                          |                        |             |
|                                             | Extrusion                                        |                        |             |
|                                             | Film Extrusion                                   |                        |             |
|                                             | Injection Molding                                |                        |             |
|                                             | Profile Extrusion                                |                        |             |
|                                             | Sheet Extrusion                                  |                        |             |
|                                             | Thermoforming                                    |                        |             |
| Multi-Point Data                            | Isothermal Stress vs. Strain (TPE) (ISO 11403-1) |                        |             |
| Part Marking Code (ISO 11469)               | >TPC-ET<                                         |                        |             |
| Resin ID (ISO 1043)                         | TPC-ET                                           |                        |             |
| Physical                                    | Nominal Value                                    | Unit                   | Test Method |
| Density                                     | 1.07                                             | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)   | 5.0                                              | g/10 min               | ISO 1133    |
| Melt Volume-Flow Rate (MVR) (190°C/2.16 kg) | 5.30                                             | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                           |                                                  |                        | ISO 294-4   |
| Across Flow                                 | 0.60                                             | %                      |             |
| Flow                                        | 0.60                                             | %                      |             |
| Water Absorption                            |                                                  |                        | ISO 62      |
| 23°C, 24 hr, 2.00 mm                        | 0.80                                             | %                      |             |
| Equilibrium, 23°C, 2.00 mm, 50% RH          | 0.20                                             | %                      |             |
| Hardness                                    | Nominal Value                                    | Unit                   | Test Method |

| Shore Hardness                            |               |      | ISO 868     |
|-------------------------------------------|---------------|------|-------------|
| Shore D                                   | 30            |      |             |
| Shore D, 15 sec                           | 26            |      |             |
| Mechanical                                | Nominal Value | Unit | Test Method |
| Tensile Modulus                           | 24.0          | MPa  | ISO 527-2   |
| Tensile Stress                            |               |      | ISO 527-2   |
| Break                                     | 23.0          | MPa  |             |
| 10% Strain                                | 1.10          | MPa  |             |
| 50% Strain                                | 4.10          | MPa  |             |
| Tensile Strain (Break)                    | > 300         | %    | ISO 527-2   |
| Nominal Tensile Strain at Break           | 860           | %    | ISO 527-2   |
| Flexural Modulus                          | 21.0          | MPa  | ISO 178     |
| Elastomers                                | Nominal Value | Unit | Test Method |
| Tear Strength                             |               |      | ISO 34-1    |
| Across Flow                               | 77            | kN/m |             |
| Flow                                      | 76            | kN/m |             |
| Thermal                                   | Nominal Value | Unit | Test Method |
| Brittleness Temperature                   | -98.0         | °C   | ISO 974     |
| Glass Transition Temperature <sup>1</sup> | -60.0         | °C   | ISO 11357-2 |
| Melting Temperature <sup>2</sup>          | 167           | °C   | ISO 11357-3 |
| NOTE                                      |               |      |             |
| 1.                                        | 10°C/min      |      |             |
| 2.                                        | 10°C/min      |      |             |

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