

## Product Datasheet



# Achieve™ Advanced PP7123KNE1

## Polypropylene Impact Copolymer

### Product Description

A medium impact copolymer resin designed for appliance applications requiring high gloss and good stiffness.

### General

|                           |                                       |                                   |                                           |
|---------------------------|---------------------------------------|-----------------------------------|-------------------------------------------|
| Availability <sup>1</sup> | ▪ Asia Pacific                        |                                   |                                           |
| Features                  | ▪ Good Processability<br>▪ High Gloss | ▪ High Stiffness<br>▪ Medium Flow | ▪ Medium Impact Resistance<br>▪ Nucleated |
| Uses                      | ▪ Appliance Components                | ▪ Appliances                      | ▪ Consumer Applications                   |
| Appearance                | ▪ Natural Color                       |                                   |                                           |
| Form(s)                   | ▪ Pellets                             |                                   |                                           |
| Processing Method         | ▪ Injection Molding                   |                                   |                                           |
| Revision Date             | ▪ 09/29/2016                          |                                   |                                           |

| Physical                                  | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|-------------------------------------------|-------------------------|-------------------------|-------------------|
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 11 g/10 min             | 11 g/10 min             | ASTM D1238        |
| Density                                   | 0.900 g/cm <sup>3</sup> | 0.900 g/cm <sup>3</sup> | ExxonMobil Method |

| Mechanical                                                | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------------------------------------|-------------------------|--------------------|---------------|
| Tensile Strength at Yield<br>2.0 in/min (51 mm/min)       | 4740 psi                | 32.7 MPa           | ASTM D638     |
| Tensile Stress at Yield (73°F (23°C))                     | 4470 psi                | 30.8 MPa           | ISO 527-2/50  |
| Elongation at Yield (2.0 in/min (51 mm/min))              | 6.4 %                   | 6.4 %              | ASTM D638     |
| Tensile Strain at Yield                                   | 5.8 %                   | 5.8 %              | ISO 527-2/50  |
| Flexural Modulus - 1% Secant<br>0.051 in/min (1.3 mm/min) | 228000 psi              | 1570 MPa           | ASTM D790A    |
| 0.51 in/min (13 mm/min)                                   | 260000 psi              | 1790 MPa           | ASTM D790B    |
| Flexural Modulus<br>(0.079 in/min (2.0 mm/min))           | 244000 psi              | 1680 MPa           | ISO 178       |

| Impact                                          | Typical Value (English)   | Typical Value (SI)    | Test Based On |
|-------------------------------------------------|---------------------------|-----------------------|---------------|
| Notched Izod Impact<br>0°F (-18°C)              | 0.50 ft-lb/in             | 27 J/m                | ASTM D256A    |
| 73°F (23°C)                                     | 1.6 ft-lb/in              | 85 J/m                |               |
| Notched Izod Impact Strength<br>-22°F (-30°C)   | 1.2 ft-lb/in <sup>2</sup> | 2.5 kJ/m <sup>2</sup> | ISO 180/1A    |
| -4°F (-20°C)                                    | 1.3 ft-lb/in <sup>2</sup> | 2.7 kJ/m <sup>2</sup> |               |
| 32°F (0°C)                                      | 1.8 ft-lb/in <sup>2</sup> | 3.8 kJ/m <sup>2</sup> |               |
| 73°F (23°C)                                     | 3.3 ft-lb/in <sup>2</sup> | 6.9 kJ/m <sup>2</sup> |               |
| Charpy Notched Impact Strength<br>-22°F (-30°C) | 1.1 ft-lb/in <sup>2</sup> | 2.4 kJ/m <sup>2</sup> | ISO 179/1eA   |
| -4°F (-20°C)                                    | 1.2 ft-lb/in <sup>2</sup> | 2.5 kJ/m <sup>2</sup> |               |
| 32°F (0°C)                                      | 1.8 ft-lb/in <sup>2</sup> | 3.7 kJ/m <sup>2</sup> |               |
| 73°F (23°C)                                     | 3.2 ft-lb/in <sup>2</sup> | 6.8 kJ/m <sup>2</sup> |               |

| Thermal                                                           | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------------------------------------------------------|-------------------------|--------------------|---------------|
| Heat Deflection Temperature (1.80 MPa)                            | 129 °F                  | 54.0 °C            | ISO 75-2/A    |
| Heat Deflection Temperature (0.45 MPa)                            | 216 °F                  | 102 °C             | ISO 75-2/Bf   |
| Deflection Temperature Under Load (DTUL)<br>at 66psi - Unannealed | 241 °F                  | 116 °C             | ASTM D648     |
| DTUL (66 psi) - Annealed                                          | 255 °F                  | 124 °C             | ASTM D648     |

| Optical     | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------|-------------------------|--------------------|---------------|
| Gloss (60°) | 89                      | 89                 | ASTM D523     |

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| Hardness          | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------|-------------------------|--------------------|---------------|
| Rockwell Hardness | 96                      | 96                 | ASTM D785     |

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This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

**Notes**

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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