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## 2180H

### 80 MELT FLOW MEDIUM IMPACT COPOLYMER POLYPROPYLENE FOR INJECTION MOLDING

#### Product Description and Applications:

Pinnacle Polymers Polypropylene 2180H is made via UNIPOL™ PP technology, which utilizes gas-phase fluidized bed reactors with a high activity catalyst system to ensure uniform physical properties and lot-to-lot consistency.

This controlled rheology copolymer is intended for use in thin wall injection molded packaging, housewares and consumer products applications. High Melt Flow dramatically improves cycle-times without forfeiting impact. Contains nucleator and antistat.

#### Features:

The 2180H product provides:

- High stiffness
- Excellent impact at 23°C and -30°C
- Very high melt flow
- Excellent mold release
- Superior processability
- Excellent lot-to-lot consistency

Pinnacle's 2180H polypropylene is covered under US FDA Food Contact Notification 864. As such, this polymer can be used in contact with all food types under Conditions of Use A-H, as described in 21 CFR 176.170, Tables 1 and 2. This polymer also complies with 21 CFR 177.1520(c), items 3.1(a) and 3.2(a).

### Typical Properties

Property	Traditional Units	SI Units	ASTM Test
Melt Flow Rate	73.6-86.4 g/10 min.	73.6-86.4 g/10 min.	D1238 <sup>1</sup>
Density at 23°C	0.9 g/cm <sup>3</sup>	900 kg/m <sup>3</sup>	D1505
Shrinkage	0.014 in/in	0.014 mm/mm	D955
Heat Deflection Temperature at 0.455 MPa (66psi)	222°F	106°C	D648
Tensile yield strength, at 51 mm/min	≥3000 psi	≥20 MPa	D638 <sup>2</sup>
Yield elongation, at 51 mm/min	5%	5%	D638 <sup>2</sup>
Flexural modulus (1% secant) at 1.27 mm/min	≥155,000 psi	≥1068 MPa	D790A <sup>2</sup>
Notched Izod impact strength, at 73°F/23°C	≥1.8 ft-lb/in	≥96 J/m ≥9.4 kJ/m <sup>2</sup>	D256 <sup>2</sup>
Gardner Impact at -22°F/-30°C	≥135 in-lb	14 J	D5420 <sup>3</sup>

<sup>1</sup>Condition L 230/2.16

<sup>2</sup>ASTM Type I specimen, 3.2 mm thick (injection molded per ASTM D4101-92a)

<sup>3</sup>Method G, Geometry GC

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