



## Pinnacle PP 2160H

### Pinnacle Polymers - Polypropylene Impact Copolymer

Tuesday, November 5, 2019

#### General Information

##### Product Description

65 MELT FLOW IMPACT COPOLYMER FOR INJECTION MOLDING

Pinnacle Polymers Polypropylene 2160H 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 improves cycle-times without forfeiting impact. Contains nucleator and antistat.

The 2160H 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
- UL Listed

Pinnacle's 2160H 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).

#### General

Material Status	• Commercial: Active		
Availability	• Europe	• North America	
Additive	• Antistatic	• Nucleating Agent	
Features	• Antistatic • Controlled Rheology • Food Contact Acceptable • Good Mold Release	• Good Processability • High Flow • High Impact Resistance • High Stiffness	• Impact Copolymer • Low Temperature Impact Resistance • Nucleated
Uses	• Consumer Applications	• Household Goods	• Thin-walled Packaging
Agency Ratings	• FDA 21 CFR 176.170 Tables 1 & 2, Cond A-H • FDA 21 CFR 177.1520(c) 3.1a	• FDA 21 CFR 177.1520(c) 3.2a • UL Unspecified Rating	
Forms	• Pellets		
Processing Method	• Injection Molding		

#### ASTM & ISO Properties<sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (230°C/2.16 kg)	65	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.013	in/in	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield, 0.126 in, Injection Molded)	3900	psi	ASTM D638
Tensile Elongation <sup>2</sup> (Yield, 0.126 in, Injection Molded)	5.0	%	ASTM D638
Flexural Modulus - 1% Secant <sup>3</sup> (0.126 in, Injection Molded)	197000	psi	ASTM D790A

# Pinnacle PP 2160H

## Pinnacle Polymers - Polypropylene Impact Copolymer

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact <sup>4</sup> (73°F, 0.126 in, Injection Molded)	1.4	ft·lb/in	ASTM D256
Notched Izod Impact (Area) <sup>4</sup> 73°F, 0.126 in, Injection Molded	3.47	ft·lb/in <sup>2</sup>	ASTM D256
Gardner Impact <sup>5</sup> (-22°F)	97.4	in·lb	ASTM D5420
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	239	°F	ASTM D648

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.
<sup>2</sup> Type I, 2.0 in/min
<sup>3</sup> Type I, 0.050 in/min
<sup>4</sup> Type I
<sup>5</sup> Method G, Geometry GC