



Pinnacle PP 2120H

Pinnacle Polymers - Polypropylene Impact Copolymer

Tuesday, November 5, 2019

General Information

Product Description

20 MELT FLOW IMPACT COPOLYMER POLYPROPYLENE

Pinnacle Polymers Polypropylene 2120H 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 product is intended for large buckets and other injection molding applications where toughness and cold temperature impact strength are required.

The 2120H product provides:

- Excellent cleanliness
- Superior toughness
- Excellent color and process stability
- Good melt strength
- Fast Set-up time
- UL Listed

Pinnacle's 2120H 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 | |
| Features | • Clean/High Purity • Food Contact Acceptable • Good Color Stability | • Good Melt Strength • Good Processing Stability • Good Toughness | • Impact Copolymer • Low Temperature Impact Resistance |
| Uses | • Containers | • Pails | |
| Agency Ratings | • FDA 21 CFR 176.170 Table 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 ¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|-------------|
| Density | 0.900 | g/cm ³ | ASTM D1505 |
| Melt Mass-Flow Rate (230°C/2.16 kg) | 20 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 0.013 | in/in | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength ² (Yield, 0.126 in, Injection Molded) | 3510 | psi | ASTM D638 |
| Tensile Elongation ² (Yield, 0.126 in, Injection Molded) | 11 | % | ASTM D638 |
| Flexural Modulus - 1% Secant ³ (0.126 in, Injection Molded) | 180000 | psi | ASTM D790A |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact ⁴ (73°F, 0.126 in, Injection Molded) | > 3.5 | ft-lb/in | ASTM D256 |

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| Impact | Nominal Value | Unit | Test Method |
|---|---------------|-----------------------|-------------|
| Notched Izod Impact (Area) ⁴ 73°F, 0.126 in, Injection Molded | 8.71 | ft·lb/in ² | ASTM D256 |
| Gardner Impact ⁵ (-22°F) | 146 | in·lb | ASTM D5420 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 225 | °F | ASTM D648 |

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type I, 2.0 in/min

³ Type I, 0.050 in/min

⁴ Type I

⁵ Method G, Geometry GC