



# Hylon® Nylon 6/6 N1213HL (Dry) Economy Grade

Entec Engineered Resins - *Polyamide 66*

## Product Characteristics

Material Status	<ul style="list-style-type: none"> <li>Commercial: Active</li> </ul>
Availability	<ul style="list-style-type: none"> <li>North America</li> </ul>
Test Standards Available	<ul style="list-style-type: none"> <li>ASTM</li> </ul>
Filler/Reinforcement	<ul style="list-style-type: none"> <li>Glass fiber reinforcement, 13 % by Weight</li> </ul>
Additive	<ul style="list-style-type: none"> <li>Heat Stabilizer</li> <li>Lubricant</li> </ul>
Features	<ul style="list-style-type: none"> <li>Lubricated</li> <li>Heat Stabilized</li> </ul>
Appearance	<ul style="list-style-type: none"> <li>Black</li> </ul>
Forms	<ul style="list-style-type: none"> <li>Pellets</li> </ul>
Processing Method	<ul style="list-style-type: none"> <li>Injection Molding</li> </ul>

## Properties <sup>1</sup>

Physical	Nominal Values (English)	Test Method
Density -Specific Gravity	1.22 sp gr 23/23°C	ASTM D792
Mold Shrink, Linear-Flow (0.125 in)	0.0050 to 0.0080 in/in	ASTM D955
Water Absorption @ 24 hrs	1.0 %	ASTM D570
Mechanical	Nominal Values (English)	Test Method
Tensile Strength (73 °F)	15000 psi	ASTM D638
Tensile Elongation @ Brk (73 °F)	2.5 %	ASTM D638
Flexural Modulus (73 °F)	775000 psi	ASTM D790
Flexural Strength (73 °F)	23000 psi	ASTM D790
Impact	Nominal Values (English)	Test Method
Notched Izod Impact (73 °F)	1.00 ft-lb/in	ASTM D256
Hardness	Nominal Values (English)	Test Method
Rockwell Hardness (M-Scale)	95	ASTM D785
Thermal	Nominal Values (English)	Test Method
DTUL @264psi - Unannealed	460 °F	ASTM D648
CLTE, Flow	1.5E-005 in/in/°F	ASTM D696

## Processing Information

Injection Molding Parameters	Nominal Values (English)	Test Method
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Drying Temperature	180 °F
Suggested Max Moisture	0.18 %
Suggested Shot Size	40 to 60 %
Rear Temperature	520 to 540 °F
Middle Temperature	540 to 570 °F
Front Temperature	540 to 580 °F
Nozzle Temperature	550 to 580 °F
Processing (Melt) Temp	550 to 580 °F
Mold Temperature	180 to 220 °F
Injection Pressure	1000 to 1800 psi
Injection Rate	Fast
Holding Pressure	750 to 1400 psi
Back Pressure	20.0 to 60.0 psi
Screw Speed	60 to 120 rpm

### Injection Notes

Pressures given are in the hydraulic circuit.

HYLON(TM) Nylon resins are shipped at moisture levels below 0.25% by weight. When drying is required due to hopper residence times in excess of one hour, exposure to air or when adding regrind, desiccant air dehumidifying hopper dryers are necessary. Hot air dryers without desiccant should never be used. The temperature of the drying air should not exceed 165°F for natural colored resins (180°F for black materials) in order to prevent excessive resin discoloration. The required time is dependent on the length of time the resin is exposed to the atmosphere. The following drying times are recommended:

0-4 hours of exposure: 2 hours  
 4-24 hours of exposure: 4 hours  
 24-120 hours of exposure: 24 hours  
 >120 hours of exposure: 48 hours

Optimum moisture levels range from 0.10% to 0.18%. Moisture levels less than 0.08% can result in reduced flow characteristics.

Dew point of circulating air to be less than 0°F (-18°C).

Air throughput minimum of 1 CFM/lb resin/hr

### Notes

<sup>1</sup> Typical properties; not to be construed as specifications.

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