HYLON® SELECT NYLON 6/6

TYPICAL PROCESSING CONDITIONS†

DRYING

HYLON® SELECT 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** in order to prevent excessive resin discoloration. The required drying time is dependent on the length of time the resin is exposed to the atmosphere. The following drying times are recommended:

Exposure Time (Hours)	Drying Time @ 165°F (Hours)
0-4	2
4-24	4
24-120	24
>120	48

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. ** 180°F drying temperature for black materials.

MOLDING

In order to obtain high quality molded parts, the processing setup must be aligned with the specific material, molding machine, throughput rate and part/runner configuration. Screw designs and heat transfer characteristics vary between machines of different manufacture, making it difficult to specify cylinder temperature profiles that can be universally applied to all injection units without some modification. The following molding conditions are recommended starting points:

Parameters	Unfilled	Impact Modified – High Flow	Impact Modified – Standard Flow	Reinforced	Reinforced & Impact Modified
REAR TEMP (°F)	520-530	490-510	530-540	520-540	500-520
CENTER TEMP (°F)	530-550	510-520	520-530	540-570	520-550
FRONT TEMP (°F)	530-550	510-520	520-530	540-580	520-560
NOZZLE TEMP (°F)	520-540	510-520	510-530	550-580	530-560
MELT TEMP (°F)	520-540	500-510	520-530	550-580	530-560
MOLD TEMP (°F)	150-200	150-200	150-200	180-220	160-200
FILLING SPEED	FAST	FAST	FAST	FAST	FAST
FILLING PRESSURE (psi)*	500-1,800	900-1100	500-2,000	1,000-1,800	1,000-1,800
HOLDING PRESSURE (psi)*	400-1,400	700-900	400-1,400	750-1,400	750-1,400
BACK PRESSURE (psi)*	20-60	20-60	20-60	20-60	20-60
SCREW SPEED (RPM)	50-150	50-150	50-150	60-120	60-120
SHOT TO CYLINDER SIZE (%)	40-70	40-80	40-80	40-60	40-60

†The data listed here fall within the normal range of product properties, but they should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Buyers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. ENTEC POLYMERS, LLC assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties expressed or implied including warranties of merchantability for a particular purpose or use are excluded and disclaimed. ENTEC POLYMERS, LLC assumes no liability for use of products in infringement of any patent. The foregoing limitation of remedy and exclusion of liability is reflected in and is part of the consideration for the price, at which the products are sold by ENTEC POLYMERS, LLC.

*Pressures given are in the hydraulic circuit.

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