

# POLYLAC®

## POLYLAC® ABS

### TYPICAL PROCESSING CONDITIONS†

#### DRYING

Polylac® ABS should be dried prior to melt processing. Polylac® ABS resins exhibit an equilibrium moisture content of 0.3% to 0.4% at 73°F and 50% relative humidity. This moisture content increases between 0.6% and 0.8% at 90% relative humidity. Although the proper amount of drying depends on the relative humidity, the ratio of regrind to virgin resin and the storage period of the resin, it is recommended that Polylac® ABS resins be dried at 175-185°F (80-85°C) for 3 hours. A moisture level of  $\leq 0.1\%$  should be reached before injection molding the resin.

#### INJECTION MOLDING

The following molding conditions are recommended starting points for Polylac® ABS resins. Some modifications may be required depending on the specific molding equipment and part configuration. For extrusion processing parameters please call Entec's Technical Department at 1-800-225-1529.

PARAMETER	PA-717C, 757, 747, 709, 756, 756H, 756S, 746, 746H, 716	PA-727†	PA-765, 765A, 764‡	PA-765B	PA-764B	PA- 777B, 777D, 777E
Rear Temp (°F)	355-390	375-410	330-350	350-365	320-355	380-420
Center Temp (°F)	390-430	410-430	335-355	355-375	340-375	420-455
Center Temp (°F)	390-430	430-445	345-365	365-385	355-390	420-455
Front Temp (°F)	420-455	430-480	355-375	375-390	365-400	445-480
Nozzle Temp (°F)	410-445	430-470	345-365	365-385	350-380	425-470
Melt Temp Max (°F)	465	495	395	430	445	490
Mold Temp (°F)	120-140	140-175	105-160	105-160	105-160	120-140
Filling Speed	Slow-Med	Very Slow	Slow-Med	Slow-Med	Slow-Med	Slow- Med
Filling Pressure (psi)**	850-1000	700-1000	710-850	710-850	710-1000	820-1000
Holding Pressure (psi)**	710-850	550-850	570-710	570-710	570-850	710-850
Back Pressure (psi)**	70-140	70-140	70-140	70-140	70-140	70-140
Screw Speed (RPM)	50-90	50-90	50-90	50-90	50-90	50-90
Shot to Cylinder Size (%)	40-80	40-80	40-80	40-80	40-80	40-80

† Molding conditions for PA-727, electroplating grade ABS are as listed above. Regrind levels should not exceed 15% with this grade. To obtain high quality parts, a low residual stress process is necessary. Moisture content of the resin should be less than 0.02% prior to molding. This may be achieved by drying the resin for 4-5 hours. Avoid using mold release agents. If necessary, water soluble release agents are recommended.

‡ Max. melt temperature for PA-764 is 430°F.

\*\*Pressures given are in the hydraulic circuit.

†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. All data displayed herein has been obtained via testing of injection molded specimens of natural color. Pigmentation may affect certain properties to various degrees. Polylac® is a registered trademark of Chi Mei Corp.



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