



PROCESSING GUIDE

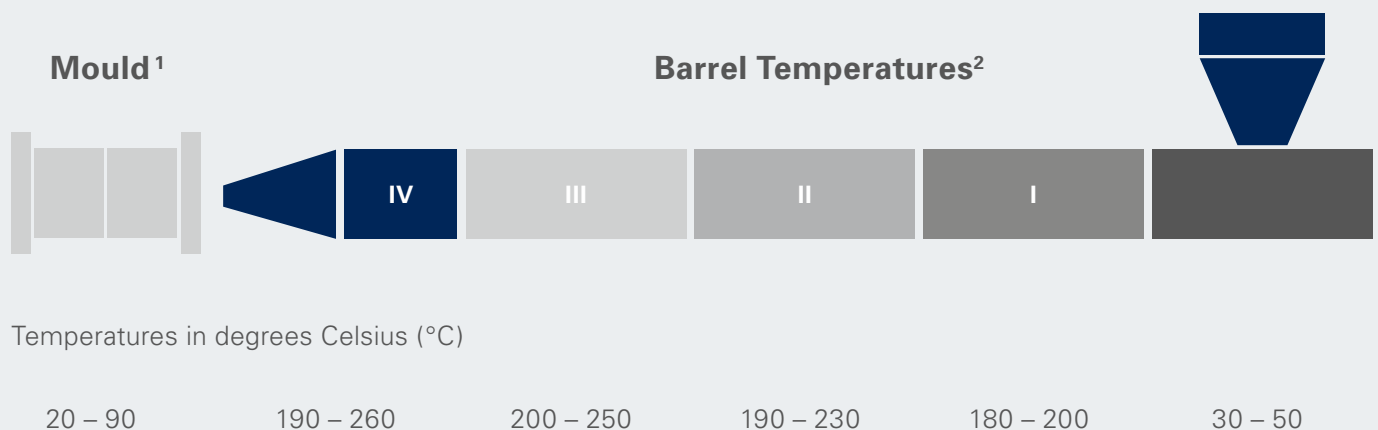
ALTECH® PP is a semi crystalline thermoplastic, unfilled or reinforced with glass fibre, glass beads and/or mineral. ALTECH® PP-H is a Polypropylene Homopolymer and ALTECH® PP-B is a Polypropylene Copolymer.

PRE-TREATMENT

ALTECH® PP is a non-hygroscopic polymer. Original packed granules are protected against humidity and do not require special treatment. Due to external conditions, such as climate or storage, humidity may condense on the surface of the granules and then pre-drying is recommended. Storage at ambient temperature before use will minimise condensation risk. Specific reinforced products will require pre-drying. See corresponding Technical Data Sheet.

PROCESSING

ALTECH® PP may be processed on all standard injection moulding machines. Wear protected plasticising units for reinforced compounds are advised.



¹ Depending on filler type and amount. See Technical Data Sheet for details.

² Guide values. Standard starting profile might be in the middle; for filled PP slightly higher, for unfilled PP slightly lower temperature profiles.

ALTECH® PP



Unit		Notes		
Properties				
Polymer abbreviation		PP		
Density (ISO 1183)	g/cm³	0.9 – 1.3 (see Technical Data Sheet)		
Injection Machinery				
Screw stroke	Metering stroke between 1 x D and 3 x D			
Screw type	Three zone screw with L/D ratio 18:1 to 22:1			
Nozzle type	Open or shut-off possible			
Hopper type	Standard			
Pre-processing				
Storage		Dry, protected from heat and light		
Dryer type		Air circulating		Dry air
Drying time³	h	2 – 4		2 – 3
		Unfilled	Glass Filled	Mineral Filled
Drying temperature³	°C	80 – 100	80 – 120	60 – 90
Permissible moisture content	%	< 0.1		
Processing Conditions				
Melt temperature range	°C	200 – 270		
Mould temperature range	°C	20 – 90 (depending on filler content)		
Coolant		Water		
Throughput coolant		To ensure turbulent flow		
Peripheral screw speed	mm/s	< 300		
Back pressure (specific)	bar	50 – 150		
Residence time	minutes	< 8		
Injection speed		Medium to fast (according to part size)		
Shrinkage⁴				
		Unfilled	Glass Filled	Mineral Filled
Shrinkage range (ISO 294-4)	%	1.0 – 2.0	0.3 – 1.2	0.7 – 1.5

³ When stored at ambient temperature before processing, pre-drying is usually not necessary.
Pre-drying of filled ALTECH PP grades can improve surface quality (especially for mineral filled grades).

⁴ Shrinkage is influenced by the part geometry, the wall thickness of the moulding, the position and size of the gate and the processing parameters.

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