

## PROCESSING GUIDE

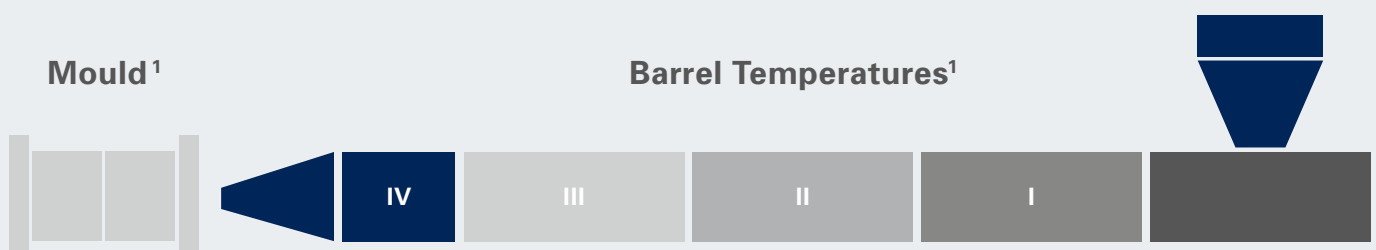
**ALTECH<sup>®</sup> PA66 is a semi crystalline thermoplastic, unfilled, reinforced with glass fibre, glass beads or mineral.**

### PRE-TREATMENT

ALTECH<sup>®</sup> PA66 is a hygroscopic polymer. The compound is supplied dry and ready for processing. Due to external conditions, such as climate or storage, humidity may be absorbed by the granules. Then, depending on humidity level, pre-drying is recommended. Storage at ambient temperature before use will minimise condensation and humidity absorbance risk.

### PROCESSING

ALTECH<sup>®</sup> PA66 may be processed on all standard injection moulding machines. Wear protected plasticising units for reinforced compounds are advised. Higher temperature might improve part quality. Higher injection speed helps to cover the glass fibre. Consult corresponding Technical Data Sheet for specific information.



#### PA66 unreinforced

40 – 80	270 – 290	280 – 290	270 – 280	270	60 – 80
---------	-----------	-----------	-----------	-----	---------

#### PA66 reinforced

80 – 120	280 – 300	290 – 300	280 – 290	280	70 – 80
----------	-----------	-----------	-----------	-----	---------

Temperatures in degrees Celsius (°C)

<sup>1</sup> Guide values. Standard starting profile might be in the middle.

Test method	Unit	Values		
<b>Properties</b>				
Polymer abbreviation		PA66		
Density (ISO 1183)	g/cm <sup>3</sup>	1.13 – 1.57 (see Technical Data Sheet)		
<b>Injection Machinery</b>				
Screw diameter	Metering stroke between 1 x D and 3 x D			
Screw type	Three zones screw with L/D ratio 18:1 to 22:1			
Nozzle type	Open or shut-off possible			
Hopper type	Standard			
<b>Pre-processing</b>				
Storage	Dry, protected from heat and light			
Dryer type	Dry air dryer			
Dryer temperature	°C	80		
Drying time <sup>2</sup>	h	2 – 12		
Permissible moisture content		max.		optimum
	%	0.12		0.08
<b>Processing Conditions</b>				
		Unfilled	Glass fibre	Mineral filled
Melt temperature range	°C	270 – 290	280 – 300	280 – 300
Mould temperature range	°C	40 – 80	80 – 120	80 – 120
Coolant	Water			
Throughput coolant	To ensure turbulent flow			
Peripheral screw speed	mm/s	< 300, e.g. screw speed of 40 rpm with a screw diameter of 50 mm		
Back pressure (specific)	bar	5 – 150		
Residence time	minutes	< 10		
Injection speed	Profile for constant flow front speed			
<b>Shrinkage<sup>3</sup></b>				
		Unfilled	Glass fibre	Mineral filled
Shrinkage range (ISO 294-4)	%	0.6 – 2.2	0.2 – 1.5	0.5 – 1.6

<sup>2</sup> Depends on the initial moisture content.

<sup>3</sup> Shrinkage is influenced by the part geometry, the wall thickness of the moulding, the position and size of the gate and the processing parameters.

## HEAD OFFICE

ALBIS PLASTIC GmbH  
 Mühlenhagen 35 · 20539 Hamburg  
 Telephone: +49 40 7 81 05-0  
 Fax: +49 40 7 81 05-361  
 info@albis.com · www.albis.com

Any information given on the chemical and physical characteristics of our products, including, without limitation, technical advice on applications, whether verbally, in writing or by testing the product, is given to the best of our knowledge and in good faith and does not exempt the buyer from carrying out their own investigations and tests in order to ascertain the product's specific suitability for the purpose intended. The buyer is solely responsible for confirming the suitability of the product for a particular application, its utilization and processing and must observe any applicable laws and government regulations.

NO EXPRESS OR IMPLIED RECOMMENDATION OR WARRANTY IS GIVEN WITH REGARD TO THE SUITABILITY OF THE PRODUCT FOR A PARTICULAR APPLICATION, SUCH AS, BUT NOT LIMITED TO, SAFETY-CRITICAL COMPONENTS OR SYSTEMS.