

Product description

Colour	Weight (mg)	Size (mm)	Bulk density (g/l)	Packaging	Food approved
Black	1.2	1.5 – 3.0	74.0 – 86.0	Bag	Yes

Physical properties

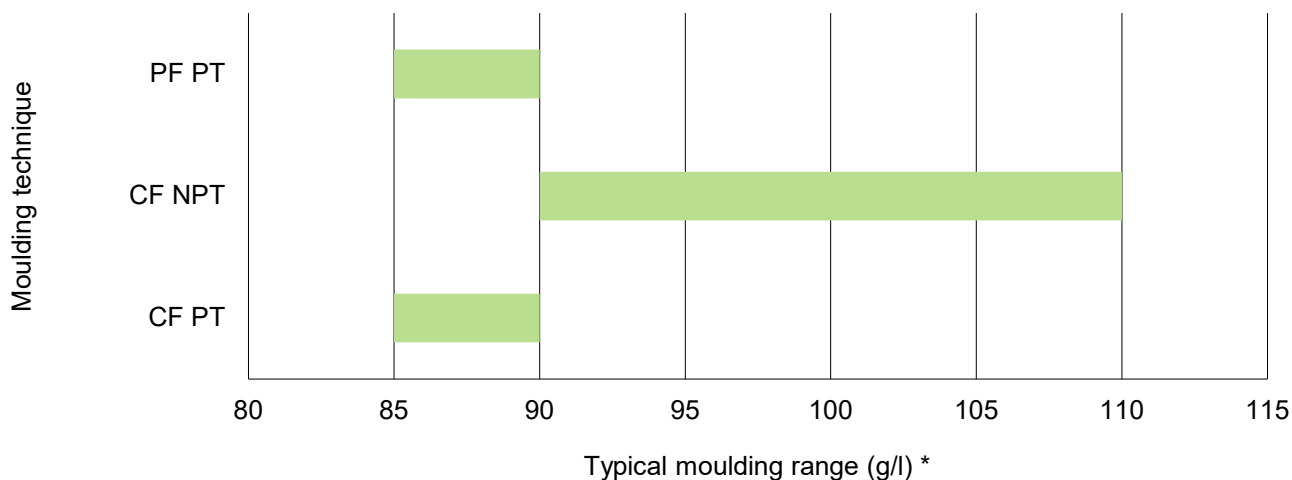
	Test method	90g/l	105g/l
Compressive strength	ISO 844		
25% strain (kPa)	5mm/min	600	760
50% strain (kPa)		820	1,040
75% strain (kPa)		1,800	2,500
Tensile strength (kPa)	ISO 1798	1,350	1,550
Tensile elongation (%)		20	18
Compression set	ISO 1856 (Method C)		
25% strain – 22 hours – 23°C (%)	Stabilising 24h	11.0	11.0
Burn rate (mm/min)	ISO 3795		
	12.5mm thick	25	25

Moulding

ARPRO 5180 can be moulded using Crack Fill (CF) and Pressure Fill (PF):

Crack fill: applied to either Pre-Treated (PT) or Non-Pre-Treated (NPT) ARPRO.

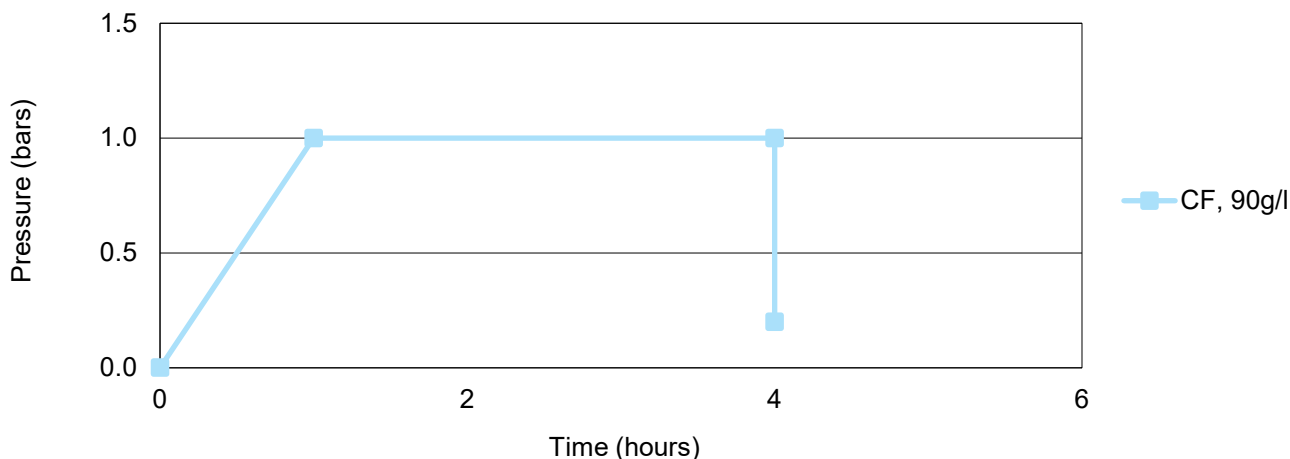
Pressure fill: only applied to Pre-Treated (PT) ARPRO.



* Shrinkage, surface aspect and cycle time are influenced by process parameters, tool and equipment layout, and part geometry.

Pre-treatment

Recommended pre-treatment cycle with pressure tank environment and incoming compressed air both at 23°C:
 1 hour up to 1 bar, hold for 3 hours at 1 bar, decrease and maintain at 0.2 bar throughout production.



Pre-treatment cycles can be adapted according to moulding process, density and part geometry:

If internal cell pressure is too high, this may lead to fusion issues. In this case, decrease time, pressure or temperature to improve fusion.

Increase time, pressure or temperature to reduce moulded density and improve aspect.

Operating the pressure tank above ambient temperature, up to a maximum of 50°C, significantly shortens pre-treatment time.

Post-treatment

No post-treatment is required. Stabilisation to ambient conditions for 4 hours before dimensional quality testing is recommended. For highly compressed parts, post-treatment is compulsory to obtain a nice surface aspect, for example 3 to 8 hours at a temperature of 80°C.

Shrinkage

Typical values range from 1.8% to 2.2%. The higher the moulded density, typically the lower the shrinkage.

Storage

A storage temperature above 15°C is strongly recommended.

Indoor storage strongly recommended.

If stored outdoors, it is strongly recommended to keep the material indoors for 24 hours before moulding.