

Product description

Colour	Weight (mg)	Size (mm)	Bulk density (g/l)	Packaging	Approved for direct food contact
Black	1.2	2.5 – 4.5	31.0 – 37.0	Bag	No

Physical properties

	Test method	Indicative values at 60g/l
Compressive strength 25% strain (kPa) 50% strain (kPa) 75% strain (kPa)	ISO 844 5mm/min	330 440 860
Compression set 25% strain – 22 hours – 23°C (%)	ISO 1856 (Method C) Stabilising 24h	10.5
Burn rate (mm/min)	ISO 3795 12.5mm thick	48

90%

**RECYCLED
PLASTIC**

Certified by RecyClass

ARPRO REvolution is made of 90% plastics originated from post-consumer origin. The carbon footprint of this grade is 0.92 kg CO₂ eq. / kg ARPRO which is a 62% reduction in CO₂ emissions compared to ARPRO made from virgin raw materials. The RecyClass certificates and the LCA are available to download from ARPRO.com:

<https://www.arpro.com/product/technical-resources/environmental-health-data>

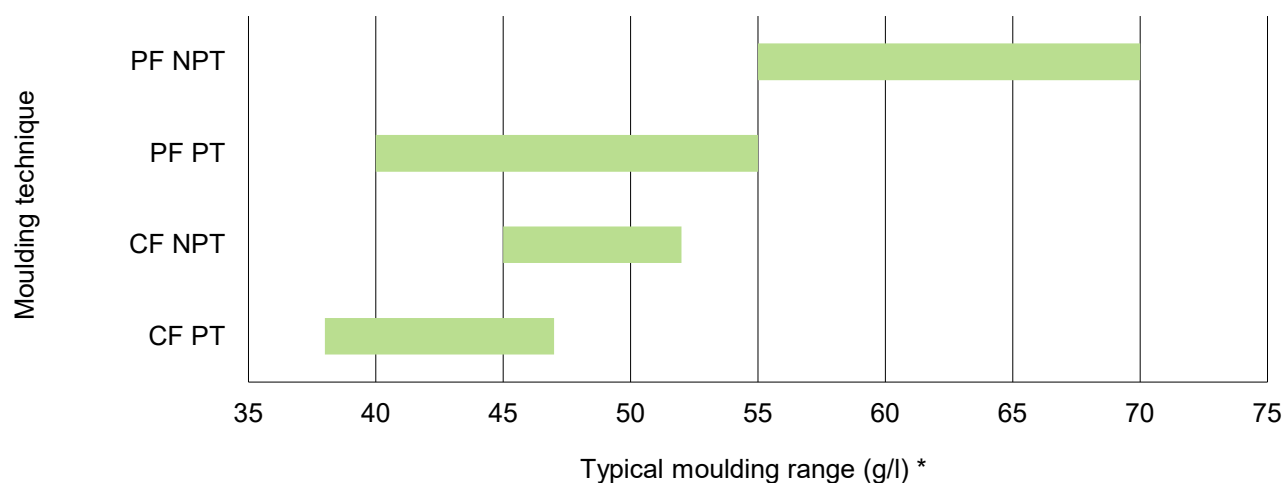
Physical properties shared in the table above are indicative values obtained after several testings but they are not guaranteed. For safety critical parts, please use ARPRO Recycled grades containing 30% post-consumer EPP waste.

Moulding

ARPRO REvolution 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.

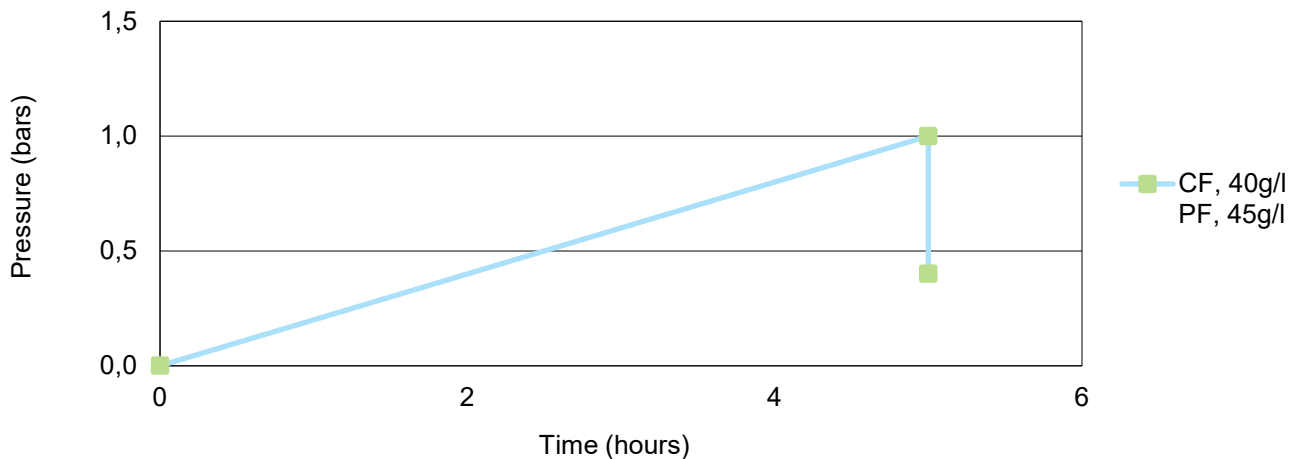
Pressure fill: applied to either Pre-Treated (PT) or Non-Pre-Treated (NPT) ARPRO.



* 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:
 5 hours up to 1 bar, decrease and maintain at 0.4 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

For moulded densities below 50g/l and depending on the parts dimensions, post-treatment at a temperature of 80°C is recommended for 3 to 8 hours. This helps to remove water content, as well as ensuring dimensional stability and a geometric shape.

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.