

Borcycle™ UF582SA

Unfilled PP Grade with Post-Consumer
Recyclate (PCR) for High Gloss Applications

Material Requirements and Characteristics

Key Material Characteristics

- Density and stiffness comparable to fossil based homopolymer PP
- High flowability suitable for injection molding
- High heat stabilization
- Additivation supporting part demolding
- Available in natural grey (-74) colors

Product Compliance

Properties	Compliance
REACH	✓
SVHC	✓
RoHS	✓

Key Technical Properties

Properties	HF700SA	UF582SA	Unit	Method
Density	905	905	kg/m³	ISO1183
MFR (230 °C / 2.16 kg)	21	15	g/10 min	ISO1133
Flexural Modulus	1350	1450	MPa	ISO 178
Tensile Strength	35	32	MPa	ISO 527-2
Heat Deflection Temperature B (0.45 MPa)	80	100	°C	ISO 75-2
Charpy notched impact strength +23 °C	2	2	kJ/m²	ISO179 1eA
Gloss Properties	90	83	GU	ISO2813


Values determined on standard injection molded specimens conditioned at 23 °C and 50 % relative humidity after at least 96 hours storage time.

Background Challenge


The UF582SA builds on the success of HF700SA, the market leader when it comes to high gloss homopolymer PP grades for asthetical applications.

It offers a sustainable replacement solution with high PCR content, allowing customers to reduce their carbon footprint and serves as a suitable replacement in applications where food compliance is not neccessary, such as housing for small appliances or other visible parts. The application scope is also supported by the advanced PCR feedstock with low odour and superior purity levels.


Your Benefits




Advanced PCR content of 55% - leading to <20% CO₂ reduction*




High gloss, low odor and high purity - ideal for visible applications



Enhanced stabilization package for the most demanding applications

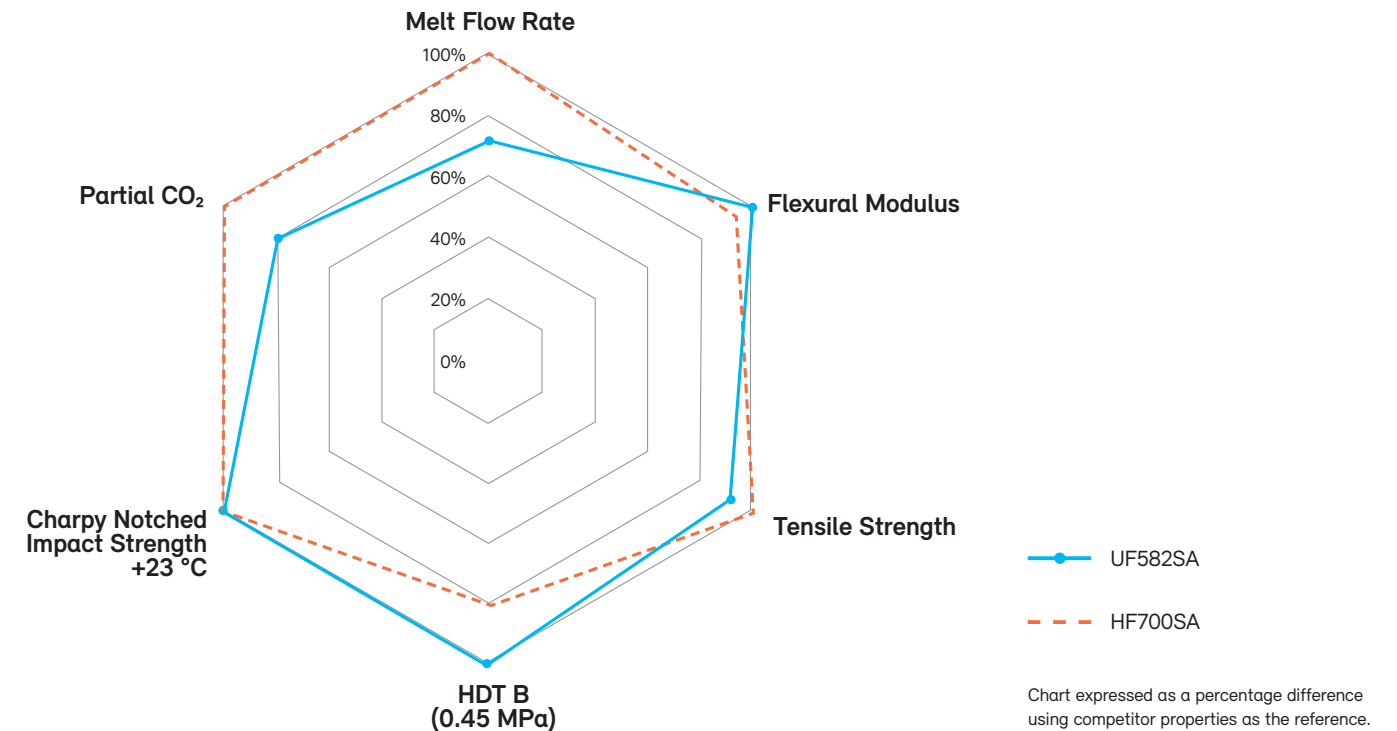


Ideal for self-coloring in grey (-74) and dark colors



Drop in solution - Matching aesthetical fossil PP grades, like HF700SA

Well-balanced Material Properties



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*** Disclaimer:** The result was estimated internally using the results from a life cycle assessment for Borealis' virgin fossil polyolefins, conducted in 2022 and a separate life cycle assessment for Borealis' PCR produced at Ecoplast/mtm conducted in 2021. A full life cycle analysis study, as well as other potential environmental impacts, was not conducted in this context. The result is estimated for the production of the pellet, and based on the assumed same functional performance between the conventional virgin solution and solution containing PCR. Other life cycle stages beyond the production of the pellets have not been considered.

About Borealis Borealis is one of the world's leading providers of advanced and sustainable polyolefin solutions. In Europe, Borealis is also an innovative leader in polyolefins recycling and a major producer of base chemicals. We leverage our polymer expertise and decades of experience to offer value-adding, innovative and circular material solutions for key industries such as consumer products, energy, healthcare, infrastructure and mobility.

With customers in over 120 countries and head office in Vienna, Austria, Borealis employs around 6,200 people. In 2024, we generated a net profit of EUR 566 million. OMV, the sustainable chemicals, fuels and energy company with a focus on circular economy solutions, headquartered in Vienna, Austria, owns 75% of our shares. The Abu Dhabi National Oil Company (ADNOC), based in the United Arab Emirates (UAE), owns the remaining 25%.

In re-inventing essentials for sustainable living, we build on our commitment to safety, our people, innovation and technology, and performance excellence. We are accelerating the transformation to a circular economy of polyolefins and expanding our geographical footprint to better serve our customers around the globe. Our operations are augmented by two important joint ventures: Borouge (with ADNOC, headquartered in the UAE); and Baystar™ (with TotalEnergies, based in the US).

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