

Product News

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BorECO™ BA2000 – an innovation step change in PP-HM pipe material

BorECO™ BA2000 – The new class of material for solid wall pipes

Modern sewage pipelines are exposed to constant static and dynamic loads requiring leak tight and extremely durable pipe systems. Polypropylene as material for underground drainage & sewage has enjoyed excellent market growth rates during many years mainly due to the introduction of the new generation of PP-HM (high modulus) materials. Borealis had been in the lead with step change PP pipe material innovations opening new opportunities for pipe manufacturers. With BorECO™ BA2000 Borealis has now developed the first high-modulus polypropylene (PP-HM) grade reaching an emodulus of 2000MPa in combination with excellent impact resistance.

BorECO™ BA2000 has been developed to improve the stiffness while maintaining good impact property balance of pipes and retaining their positive long-term performance and expected lifetime for generations. It allows pipe manufactures to produce heavy duty pipes without mineral fillers without any compromise in pipe performance. BorECO™ BA2000 exceeds all requirements of the newly created S14 class in the revised EN1852 standard and provides further dimensioning options for non-pressure solid wall pipes.

BorECO™ BA2000 – a step-changing advance in PP-HM material

- New high performance PP-HM material for solid wall non-pressure pipes
- The material for the new PP-HM S14 class in EN1852-1 (Plastics piping systems for non-pressure underground drainage and sewerage – Polypropylene (PP) – Part 1: Specifications for pipes, fittings and the system
- Optimised molecular weight distribution for high pressure resistance
- Superior stiffness with excellent impact resistance

BorECO™ BA2000 benefits the entire value chain

Pipe producers	Installers	Utilities	End User
<ul style="list-style-type: none">• Excellent processability• Cost-efficient production• Consistent pipe quality	<ul style="list-style-type: none">• Robust Pipes• Fast, easy and safe installation• Easy renovation	<ul style="list-style-type: none">• Outstanding durability• Less maintenance costs• Decreased full-lifetime costs	<ul style="list-style-type: none">• Safe and reliable operation• Low costs of operation• Low noise, no smell



Durable solutions for cost-effective sewage systems

The benefit of pipes made of high-modulus polypropylene (PP-HM) becomes especially striking when compared to old generation material, like heavy weight concrete and clay. BorECO™ PP-HM pipes are safe, fast and easy to handle at the construction site and therefore help to safe installation time and costs.

A 200 mm pipe made of BorECO™ BA2000 is more than 90% lighter than a concrete pipe with the same diameter!

BorECO™ PP gravity pipelines are leak-tight sewage systems contributing to environmental protection. These PP pipe systems have structural integrity and are flexible enough to support ground movements.

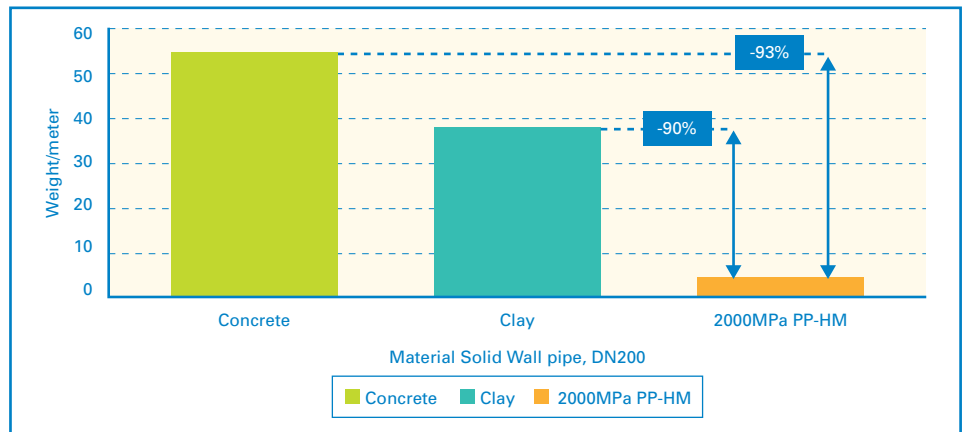


Figure 1: Comparison – Weight/meter pipe



Property	Typical value	Test method
Flexural modulus	2000 MPa	ISO 178
MFR (230°C/2.16 kg)	0,3 g/10 min	ISO 1183
Tensile Strain at Yield (50 mm/min)	6,5%	ISO 527-2
Tensile Strain at Yield (50 mm/min)	38 MPa	ISO 527-2
Charpy Impact Strength, notched (23°C)	29 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20°C)	2 kJ/m ²	ISO 179/1eA

Table 1: BorECO™ BA2000 characteristics

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centres and service centres work with customers in more than 170 countries to provide materials that make an essential contribution to society and sustainable development. We are committed to the principles of Responsible Care® and to leading the way in 'Shaping the Future with Plastics'™.

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For more information contact:
info@borealisgroup.com | info@borouge.com
www.borealisgroup.com | www.borouge.com
+43 1 22 400 000 | +65 6275 4100