

Class 5 listing of PE-Xa compound adds additional comfort for end-users



Fully stabilised in easy-to-handle mini-pellets, Borealis HE1878E-C2 sets a new level of performance in the PE-Xa industry

A proven PE-Xa material innovation

Borealis HE1878E-C2 was developed to meet the higher requirements of resistance to disinfectants in the hot and cold water pipe applications, thereby providing end-users with additional peace of mind. The target was to make a ready-made compound which would meet the highest standards whilst also making PE-Xa pipe production easier, safer and more cost efficient.

Tailored for PE-Xa, Borealis HE1878E-C2 is already established on the market as a leading high performance, cost saving and safe material solution for crosslinked pipes in plumbing applications. Borealis HE1878E-C2 has now further been accredited with the highest available chlorine resistance requirements according to the ASTM F876 standard for PE crosslinked pipes. This accreditation not only confirms the competitive edge of Borealis HE1878E-C2 but also considerably broadens its potential markets, bringing greater benefits to pipe producers and the whole pipe value chain.

In addition to the well-known benefits associated with PE-Xa pipe such as high temperature resistance, excellent flexibility and low creep, the Borealis HE1878E-C2 solution offers a fundamental production advantage; it is a fully formulated, mini-pelletised compound that requires only peroxide to be added. Furthermore, its state-of-the-art stabilisation package also opens it up for use in certain industrial applications.

Highest performance with Class 5 listing

A growing emphasis is being put on drinking water safety and this is leading to the wider and increasing use of disinfectants by providers. Therefore managers, utilities and end-users want to be assured that networks are kept intact whilst delivering the necessary protection over a long service life. By meeting the highest chlorine resistance requirements according to the ASTM F876 standard, it is precisely these needs that are being met by the ready-compounded PE-Xa solution, Borealis HE1878E-C2.

Confirming the performance leadership of Borealis HE1878E-C2, the compound has now achieved Class 5 listing. As stated, this is the highest chlorine resistance rating according to the ASTM F876 standard for PE crosslinked pipes using the ASTM F2023 test method. ASTM F876 is the standard specification for Crosslinked Polyethylene (PE-X) Tubing in North America. This advanced accreditation of Borealis HE1878E-C2 not only opens up for further opportunities for pipe producers on the North American market; it also enables pipe producers in Europe, the Middle East and Asia to differentiate their product offering from competitors.



Class 5 listing now added to the list of comfort-giving benefits of Borealis HE1878E-C2 for end-users

Streamlined pipe production process

Fully formulated with a state-of-the-art stabilisation package in easy to handle mini-pellets, Borealis HE1878E-C2 saves additional time and costs in the production of PE crosslinked pipes. It increases efficiency by reducing production steps, requiring the addition of peroxide only and minimising the risk of additive dosing errors. Moreover, it removes the need for separate additive purchasing and stockholding and improves safety through minimised handling.

Re-enforcing the preference for PE-Xa pipes

PE-Xa is the preferred hot & cold water piping solution for many installers thanks to its outstanding flexibility and proven safe performance based on a solid track-record spanning decades. Now, with the cross linkable compound Borealis HE1878E-C2, Class 5 listing can be added to the list of comfort-giving benefits. Pipe producers can enjoy access to an already proven stabilisation package whilst the end-user has the confidence of the long track-record of PE-Xa as well as the comfort of the Class 5 listing. Furthermore, new industrial application areas can now be explored thanks to the superior properties of Borealis HE1878E-C2.

Borealis HE1878E-C2

Properties	Typical values	Test Method
Density	952 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/21.6 kg)	9 g/10 min	ISO 1133
Tensile Stress at Yield	22 MPa	ISO 527-2
Oxidation Induction Time	>50 min	ISO 11357-6
Chlorine resistance cell	5	ASTM F2023

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