

Product News

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Borcell™ HE4873 takes a new turn in higher frequency data cable performance

The next step insulation for physical foam Cat 7 data cable

This newly developed Borcell cellular, physical foaming compound delivers advanced solutions to the growing challenges presented to data cable insulations. In today's wired-world, network providers are demanding cables that are able to carry reliable, quality transmissions at increasingly higher frequencies to offer broader bandwidths.

The new compound offers enhanced process stability which is fundamental to achieve consistent data cable quality at high line speed.

Delivering an advanced insulation solution, Borcell HE4873 is mainly based on high density polyethylene (HDPE). This compound has been formulated to give excellent foaming in the gas injection extrusion of cellular insulation, at high line speed, to bring the lowest level of Cross talk across a broad spectrum of frequencies.

Borcell HE4873 offers 'Fit for Purpose' properties adjusted to match specific Data cable needs.

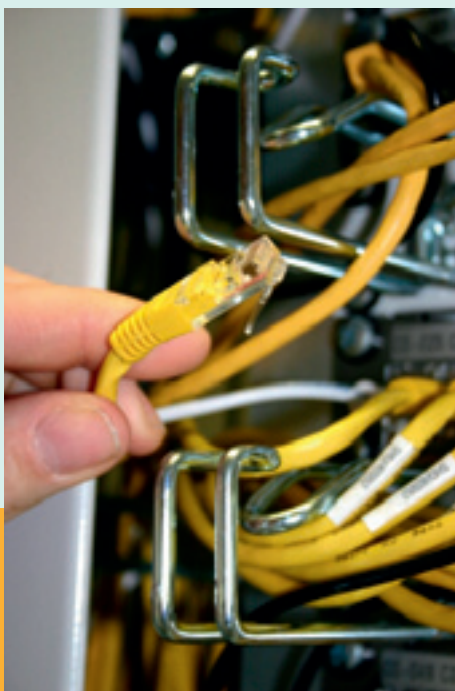
This new Borcell grade is characterised by:

- Full compound for reliable consistency
- Less scrap due to stable processing
- Up to 10% higher line speed
- Longer production runs
- Fine and homogeneous cell structure

Full compound for physical foam insulation

Full compound for physical foam insulation Borcell HE4873 was recently developed to better serve the needs of advanced screened, twisted pair data cables produced using the gas injection foaming process. Previously cable producers were using Borcell HE1102 as one of a mix of compounds, including 10-15% Borcell HE1344, for the manufacture of Cat 7 data cables. Borcell HE4873 encompasses this formulation concept to provide cable makers with a fully blended compound to satisfy specific insulation criteria.

As a full compound it eliminates the need for in-house blending and reduces therefore preparation time. As a full compound it increases the product consistency versus in-house blending and results in more **stable processing - less scrap and reduced preparation time.**



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Increased Productivity

- The innovation of the compound is the balance between the carefully selected polymer system and a special nucleating agent. It enables cable makers to achieve **higher line speed up to 10%**
- Greater homogeneity and uniformity of cells delivers increased resilience to allow **higher twisting speeds** and jacketing line speed without crush-damage to the cables.
- The special nucleating agent system used in Borcell HE4873 results in reduced plate-out and therefore less extruder downtime supporting **longer production runs**.

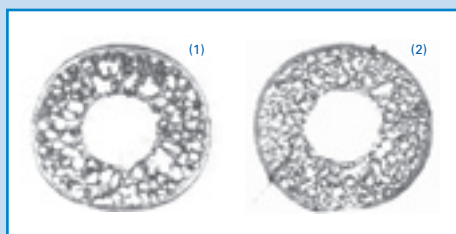
Fine and homogeneous cell structure

The very low dielectric loss exhibited by Borcell HE4873 gas injected cellular insulation provides for higher frequency transmission than was possible with earlier generation materials.

Superior concentricity and homogeneous cell structure are key to support higher frequency transmission characteristics. The enhanced homogeneity of the Borcell HE4873 aids the uniformity of cell formation in the foamed insulation, while, the **fine homogenous and closed cell structure** provides improved adhesion to the conductor.

The addition of a metal deactivator improves insulation ageing performance in cable constructions where direct contact with copper occurs.

Able to meet the requirements of Cat 6 and Cat 7 data cables, Borcell HE4873 presents network providers with the opportunity to offer greater volume data transmission services with enhanced reliability and quality.



(1) Example of uneven cell structure
(2) Fine and homogeneous cell structure (Borcell HE4873)

Customer quote

"Our processing for data cores is much more stable, since we use HE4873. We were able to increase the line speed from 1.380m/mn to 1.450 m/mn. We also use HE4873 for very thin coax that likes more blowing agent."

Klaus Falkenberg, Draka Comteq

Characteristically Borcell HE4873 offers:

- **Full compound for reliable consistency**
- **Less scrap due to stable processing**
- **Up to 10% higher line speed**
- **Longer production runs**
- **Fine and homogeneous cell structure**

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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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