

Compounds Eco-friendly solution

POLYNT REICHHOLD GROUP Compounds product overview



Production Sites



Polynt Composites Germany GmbH Polynt Composites Poland Sp. z o.o. Polynt SpA (Italy) Polynt Composites Korea Co., Ltd.



Polynt Reichhold Group

After the merger on May 2017 the new Polynt-Reichhold Group is a global Company in the Intermediates, Coating and Composite Resins, Thermoset Compounds, Gel-coats and niche Specialties.

This combination enhances the Group's leading position as a global vertically integrated specialty chemicals player, with significant global presence in Europe, North America and Asia, a strategy initiated by Polynt with the successful integration of PCCR and CCP in the last years and now further reinforced by Reichhold's global scale, extensive product portfolio and R&D competencies.

Polynt-Reichhold Group is known for its superior quality and impressive range of products and with its excellent distribution network it can provide first-class service to customers whatever their market. Customer Service and Technical Service teams are renowned for their customer focus, offering the best service even after products have left manufacturing.

The Group strives to keep customers satisfied, assisting them in producing premium quality products every time they use its products.

Product innovation is important for the Group's business and it's the reason for which it constantly works with customers to find solutions to problems.

Introducing new or improved products ensures that Polynt-Reichhold Group continue not only to deliver what the market wants and needs, but also when it is wanted and needed.

Polynt SMC and BMC

Compound materials known as SMC (Sheet Molding Compounds) and BMC (Bulk Molding Compounds) are produced using thermosetting polymeric matrices, the most commons are: Unsaturated Polyester, Vinylester and Epoxy resins. Thermosetting resins form the matrix and the chemical backbone of SMC/BMC imparting the required properties.

SMC and BMC are mostly reinforced with variable-length glass or carbon fibers: the choice between them depends on the required material properties.

BMC looks like a homogeneous mass reinforced with glass or carbon fibers (lengths range from 3mm to 24mm) and it is packaged in 10-15 kg bags, impermeable to styrene diffusion, according to the customers'

requirements.

SMC looks like a continuous sheet reinforced with glass or carbon fibers (lengths range from 12mm to 50mm). It is produced as sheets with normally dimensions 4mm thick and 1500 mm wide packaged in rolls or in boxes as per the customers' specifications.

SMC and BMC can be processed with different hot-melting technologies such as compression, injection and transfer. During the moulding phase, thanks to the combined effect of heat and pressure, the material undergoes the crosslinking reaction and consolidating takes on the shape dictated by the mold geometry.

Eco-friendly Solutions

The simplest definition of eco-friendly solution is "conceived to have little or no damaging effect on the environment". Our various BMC / SMC line portfolio contains solutions that cover different aspects of Eco-friendly materials.

Aspects of Eco-friendly materials

Compared to traditional materials, such as steel, aluminum and concrete, with a high environmental impact in terms of energy consumption, raw materials and carbon dioxide emissions, SMC and BMC are the best answer to today's needs of:

- weight reduction of the component with a consequent significant decrease in fuel consumption and CO2 emissions;
- reduced amount of steps following the processing, such as drilling and welding;
- optimized life cycle behavior by being sustainable and recyclable through coprocessing in cement kilns in compliance with the European Waste Framework Directive (WFD) 008/98/EC;
- avoiding waste compared to other reinforced plastics by filling molds by flow.

Eco-friendly materials includes recycled grades based on thermoset material and/or fibres available (e.g.

-RECarbon product line).

Styrene-free and/or low VOC emission SMC and BMC offer better air quality at working environment and inside of structures/vehicles.

Bio-sourced raw materials/chemicals replacing resin monomer and additives from renewable sources further improve the sustainable value of SMC and BMC.

SMC and BMC are also produced using natural fibres like Bamboo, flax, hemp and cellulose, to create a specific biobased reinforcement.



Close-up of a tray made with Eco-friendly compounds.

Our today's family offers you this wide range:

BMC and SMC	Sustainable grades used in different industries
SMC / BMC eco line	New line of sustainable products offering all options of improving the sustainabilty
SMC / BMC bio line	Established product line with bio-based resin matrix by offering the same known performance
RECarbon [®] line	Established product line of Carbon fibre products using "scrap"

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