

超高衝撃強度バイオプラスチック

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Bio-Plastic with Super High Impact Strength

Joint development partner: Toyota Central R&D Labs., Inc.

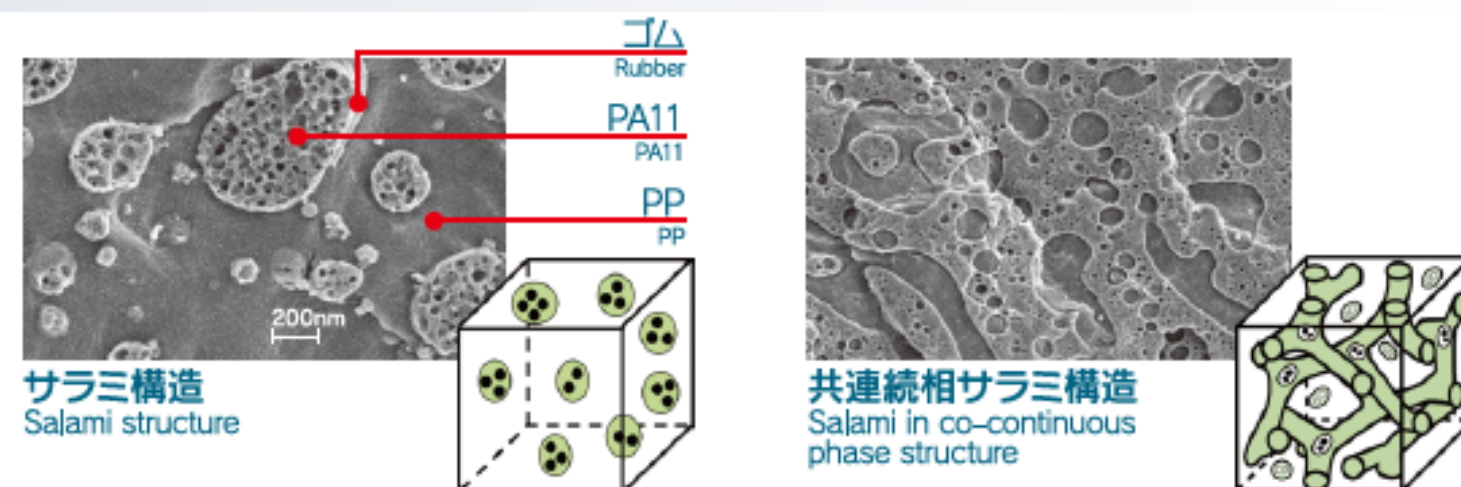
「ひまし油」を原料とする100%植物由来樹脂ポリアミド11(PA11)と、石油由来樹脂のポリプロピレン(PP)を複合化し、世界トップクラスの衝撃強度を実現。

World-class impact strength with a synthesis of polyamide11 (PA11), a 100% natural resin made from castor oil, and petroleum-derived polypropylene(PP).

特長 Feature

PA11とPPの親和性を向上させ、ナノレベルで混合・分散制御することにより衝撃強度に有効な「サラミ構造」と、それを進化させた世界初の「共連続相サラミ構造」を実現。

Improved compatibility of PA11 and PP enabled nano-level blending and dispersion control. It achieved salami structures effective in impact strength, leading to the world's first salami in co-continuous phase structures for even better performance.



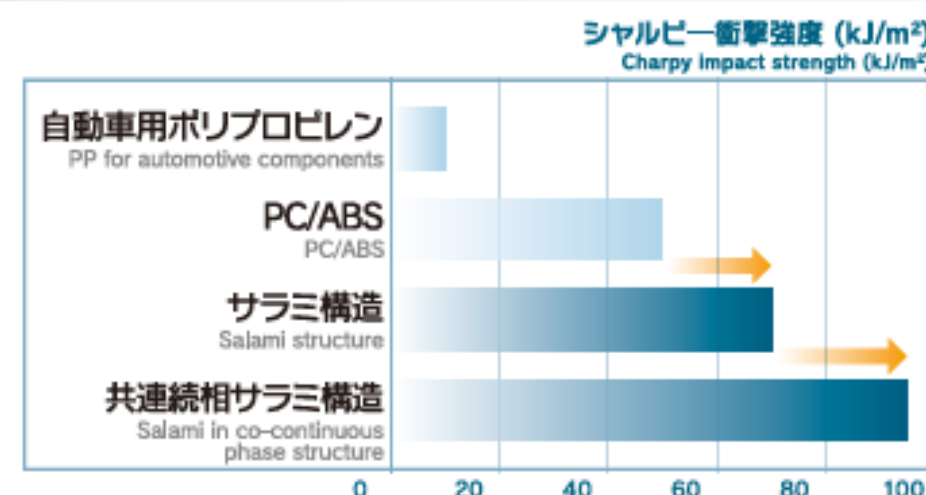
効果 Results

① 従来(自動車用ポリプロピレン)の約10倍の衝撃強度を実現

Impact strength that is 10 times greater than the previous (PP for automotive components)

② 高衝撃樹脂で知られるポリカーボネート系複合樹脂の衝撃強度を上回る性能

Better impact strength than polycarbonate blends that are known for high impact performance



適用可能分野が広く、
自動車以外にも応用可
The developed materials can be used
for multitude of products