MCC Develops New Grade of Thermoplastic Copolyester Elastomer "TEFABLOC™" —Offering both Flexibility and Outstanding Oil and Scratch Resistance—

Mitsubishi Chemical Corporation

Mitsubishi Chemical Corporation (MCC; Head office: Chiyoda-ku, Tokyo; President: Hitoshi Ochi) today announced the development of a new grade of its thermoplastic copolyester elastomer (TPC) "TEFABLOCTM"*¹ providing excellent oil resistance and scratch resistance.

TEFABLOCTM has an excellent thermal bonding with various rigid materials such as polycarbonate and ABS resins, in addition to TPC's already outstanding resistance to heat, oil, and scratch. TPC is widely used in 2K injection molding^{*2} applications such as grips and gaskets.

Conventionally, TPC, including TEFABLOCTM, offers excellent oil resistance and scratch resistance in high hardness areas (hardness: durometer 80A–50D), but these characteristics decline in low hardness areas (durometer 50A~80A). Therefore, there is already strong demand for TPC, which offers both low hardness and outstanding oil and scratch resistance.

The new grade of TEFABLOC™ developed by MCC is a ground-breaking, unprecedented TPC, which achieves lower hardness like rubber (compatible up to durometer 50A) and outstanding oil and scratch resistance, at the same level as high-rigidity TPC (please refer to the next page), by applying special material designs different from the conventional product.

The new grade of TEFABLOCTM is already being adopted for automotive mechanical components, which require high flexibility and outstanding oil and scratch resistance. It is expected to be adopted for other applications, which used to be difficult with conventional products, such a grips for consumer durables including electric power equipment requiring skin cream resistance.

In addition, MCC is currently conducting R&D on applications with various types of nylon to expand the range of two-color moldable rigid materials.

MCC will promote application and market development of this new grade of TEFABLOC[™] all over the world to further accelerate expansion of its performance polymers business.

- *1 TPC under the brand name "PRIMALLOYTM" was integrated into the TEFABLOCTM lineup in April 2017.
- *2 A method that is used for thermal bonding by continuous or insert molding of two different types of plastics that have different characteristics.

For further information, please contact:

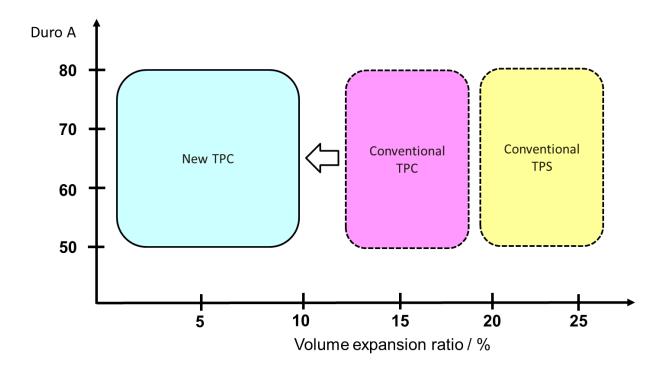
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Reference: Comparison between new TPC and conventional products

Oil resistance



Scratch resistance (taber abrasion)

	New	Conventional	
Product	TPC	TPC	TPS
Hardness	60A	80A	60A
Surface			
Visual evaluation	Not obvious	Obvious	Highly obvious
Haptic evaluation	Smooth	Rough	Obviously rough