



Solutions for Sealing Systems

ABOUT US

The Mitsubishi Chemical Performance Polymers business (MCP) is one of the top growing businesses at Mitsubishi Chemical Group. MCP delivers innovative solutions based on consistent chemistry based technology, polymer design, and thermoplastic compounding expertise.

CUSTOMER ORIENTED

Our commitment is to be your global specialty partner by developing and delivering solutions which satisfy a variety of needs.

GLOBAL

Worldwide, we deliver high quality, thermoplastic resins for automotive applications. These applications include safety parts, seals, under the hood, interior and exterior components. As a reliable partner, we also provide global thermoplastic solutions for consumer goods, packaging, medical, building industries, wire and cable, and other industrial applications.

Mitsubishi Chemical Performance Polymers, expertise in materials for sealing system

Mitsubishi Chemical Performance Polymers has designed and produced thermoplastic flexible materials for nearly 50 years. They are employed for numerous applications, and sealing is, in all sectors a field for which they have been unmistakably successful.

Being a pioneer, we have for ever played a leading role in elaborating thermoplastic materials matching technical requirements and ageing constraints usually met in this sector. Thus, we have held, for several decades, homologations in accordance with the highest European standards. Furthermore, we are an active member of the technical commissions working for standard improvement in accordance with scientific progress in that realm.



Solutions for Sealing Systems

Technologies

The product range for seals includes two large families:

- **TPE technology** : **TEFABLOC™** product range is made of TPE (thermoplastic elastomers) solutions. Alternatives to EPDM cross-linked rubber types, these products show an excellent behaviour at very low temperature and a strong creep resistance at elevated ones. Thanks to a high elastic recovery they are particularly adapted for dynamic seals.

Chemically compatible between them, but also with polyolefins, **TEFABLOC™** formulations for seals are often used in combination to produce multi-material profiles with several hardnesses, pending on whether it is the sealing itself or the feet.

This chemical compatibility makes also possible the heat corner welding. In addition, it offers a significant economical advantage because high performance formulations may be only present where they are really necessary.

The **TEFABLOC™** is also totally inert with organic glazing (polycarbonate-PC or acrylic-PMMA). So it is recommended for seals in contact with these materials.

- **PVC technology** : **SUNPRENE™** high performance flexible PVC makes this family (see note). Pending to formulations, seals will have a static or dynamic usage. Thanks to their compatibility with rigid PVC (PVC-U), they are recommended for PVC glass-lath co-extrusion, but for dynamic seals, they may be also converted by post-co-extrusion process, together with the PVC profile.

Note:

Since mid 2016 **SUNPRENE™** is the single brand name for **M CPP** vinyl based compounds, fully dedicated to window seals. **SUNPRENE™** is replacing **MARVYLEX** and **TEFANYL** brands without any modification for grade codes and composition.

**Window
-
door**

PVC

Aluminium

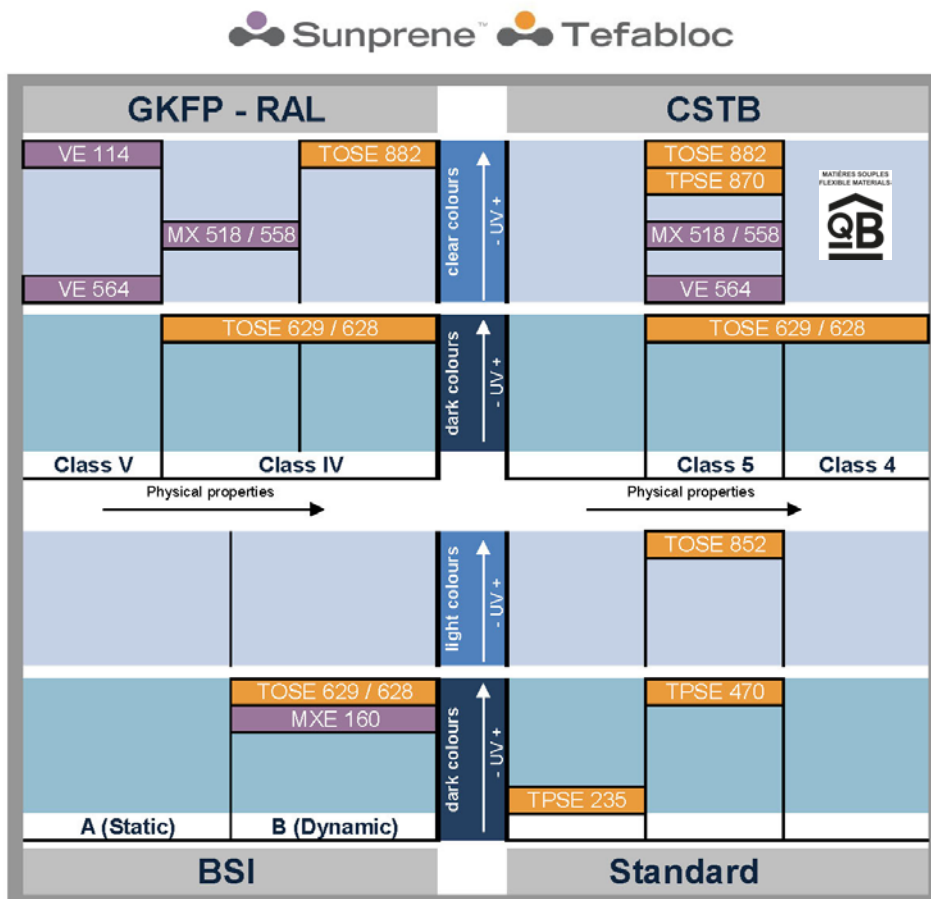
Wood

**European
Standards**

Certifications

Formulations are certified by the most representative European official bodies of different countries, in order to offer competitive solutions fitting with climate zone, from coldest to warmest.

The list of certified grades, including colors and hardness, is available from our web site.



Note : This list is not an exhaustive one. Other certified formulations complete this range.

Specialities

Additives

For these standard formulations, additional functionalities may be requested :

Flame retardant – Translucent – Foaming – Antistatic – Colour ...

Foamed seals

Mitsubishi Chemical Performance Polymers has a specific know-how in production of foaming agent to be used with **TEFABLOC™** that may give density as low as 0.5 g/cm³. The specificity of these additives is that they combine several expanding technologies a single master-batch.

In pellet delivered they are easy to handle, and the incorporation ratio of 5% makes possible to use a simple dosing equipment (colour volumetric type) and guarantee a perfect dispersion of the agent.

Processing

Materials for seals offered are processed on conventional equipment for extrusion of thermoplastics. In that way it gives them significant advantages for process flexibility, investment and energy consumption.

Process flexibility : Extrusion, co-extrusion and post-co-extrusion processes may be employed with an optimized productivity in each case. Usually delivered as pre-pigmented, these materials are perfectly adapted for on line coloration of limited series.

Low investment and energy savings : Compared to the necessary equipment for extrusion of cross-linked materials like EPDM, the materials do not require reticulation phase. Consequently, investment is limited, and energy consumption lower. This friendly environmental character is reinforced by the absence of moisture sensitivity that makes desiccation not necessary (in case of humidity in bags materials may be dried without any damage).

Processing recommendation of the different materials are described on technical data sheets available on request.

Recycling

Process scraps and end of life materials : The thermoplastic property of materials makes the processing scraps and end of life materials fully recyclable.

- **SUNPRENE™** to be recycled with PVC (symbol 03 of DIN6120 and ISO 1043-1 standards). Seals produced with this materials may be ground together with the PVC-U profile without preliminary sorting out.
- **TEFABLOC™** to be recycled as PP (symbol 05 of DIN6120 and ISO 1043-1 standards). Seals produced with these materials have to be separated from the PVC-U profile prior to be grinding.

Usefull information

Cleaning of seals : Usual domestic cleaning agents may be used without any known inconvenience caused to these materials. They must be profusely rinsed after usage

Disclaimer: The information contained herein is accurate to the best of our knowledge, but since the circumstances and conditions in which the material may be used are beyond our control, we do not accept liability for any loss or damage that may occur nor do we offer any warranty of immunity against patent infringement. The values indicated in the tables only describe typical properties but do not constitute specification limits.

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