

Trinseo TPE For applications in building technology

Why Trinseo TPE?

The requirements for TPE profiles and gaskets used in building technology are many and varied. In addition to good mechanical property values, suitable materials must be durable and have a high resistance to UV radiation and weathering.



TPE for profiles and gaskets

With **MEGOL™ TPS**, **APIGO™ TPO** and **TIVILON™ TPV**, Trinseo offers a wide range of TPE grades for extruding components used in building technology. The materials are used, among other things, as gaskets in window and door frames, because they offer the following properties:

- Certified according to RAL-GZ 716/1 or the British Standard
- Excellent compression set over a wide temperature range
- Good extrudability
- Chemical adhesion on PP

	Product	TPE grade	Standard	Application
1	APIGO™ 8376-BS*	TPO	British Standard	for statically stressed gaskets
2	MEGOL™ 8377 BS	TPS	British Standard	for statically and dynamically stressed gaskets
2	MEGOL™ WR 60	TPS	RAL GZ 716/1	for statically and dynamically stressed gaskets
2	TIVILON™ M 60	TPV	RAL GZ 716/1	for statically and dynamically stressed gaskets

* = for countries with medium to low UV exposure

People. Think. Plastics.

With Trinseo TPE, K.D. Feddersen always provides you with the right, flexible material solution. Benefit from our application-technical support. We aim to meet your requirements with the right material, service and customised logistics concepts.



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TPE according to RAL-GZ 716/1

Property	Testing standard	Unit	Requirement	MEGOL™ WR 60	Requirement	TIVILON™ M 60
Density	DIN 53479 (A)	g/cm³	1.045±0.03	1.044	-	-
Hardness	DIN 53519	IRHD	69±5	69	67±5	70
Tensile strength	DIN 53504	N/mm²	≥5	13.8	≥5	6.9
Elongation at break	DIN 53504	%	≥250	730	≥250	783
Compression set	DIN ISO 815 -25 °C/22 h/25 % +23 °C/22 h/25 % +70 °C/22 h/25 %	%	≤90	68.0	≤90	78.7
			≤35	7.5	≤35	22.1
			≤50	41.6	≤50	41.8
Ozone resistance	DIN 53509 +40 °C, 96 h, 50 ppm	crack pattern	0	0	0	0
Artificial weathering	RAL-GZ 716/1 part 1 4,040 h, 8 GJ/m² grey scale ISO 105 A O2 all colors A O3 for white	color fastness	no blisters or cracks	no visual changes	no blisters or cracks	no visual changes
			≥3 ≥4	4 4	≥3 -	4/5 -
Weather resistance (elongation at break)	DIN 53504	%	≥200	788	≥200	735

TPE According to British Standard

Property	Testing standard	Unit	Requirement	MEGOL™ 8377 BS	APIGO™ 8376-BS
Density	ASTM D792	g/cm³	-	1.16	1.17
Hardness	BS 903-A26	IRHD	-	73.0	72.2
Tensile strength	BS 903-A2	N/mm²	-	7.90	5.01
Elongation at break	BS 903-A2	%	-	832.0	658.3
Compression set	DIN ISO 815 Typ B – ASTM D395 +23 °C, 24 h +55 °C, 24 h +70 °C, 24 h	%	-	25	-
			-	44	-
			-	64	-
Ozone resistance	BS 903-A43 +40 °C, 96 h, 100 ppm	%	≥20 % elongation	passed	passed
Artificial weathering	BS 7412 part D, 2,250±500 h, 8 GJ/m²	-	no blisters or cracks	no visual changes	no visual changes
Weather resistance (elongation at break)	BS 903-A2	%	≥-25	-7.91	+29.07

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