SINCE 1934

TECHNO bit

TECHNOLOGY OF INSULATING MATERIALS

CHALLENGER
Z10

ELASTOMERIC ASPHALT
WITH UV STABILITY
THERMAL RESISTANCE
AND RESISTANCE TO
OXIDATIVE BREAKDOWN



20 YEARS GUARANTEE

THE WISE CHOICE

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Description

CHALLENGER membranes are engineered for diverse and extreme climate zones, offering unparalleled, all-weather reliability. This line is typically specified in thicknesses from 3 mm to 5 mm, featuring high-strength polyester reinforcement and various surface finishes (mineral slate, non-woven fabric, or sand). **CHALLENGER** is APAO (Amorphous Poly-Alpha-Olefin) and POE (Polyolefin Elastomer) Modified Membranes define the next generation of high-performance roofing. This unique chemical modification creates a true hybrid material, delivering the superior UV and heat stability of APP combined with the exceptional low-temperature flexibility of SBS

Major Features

- High-Performance, All-Weather Roofing
- Projects in Diverse or Extreme Climate Zones
- Applications Demanding High Flexibility and High UV Resistance

Uses

- Hybrid Performance: Offers the best of both APP (heat stability) and SBS (flexibility).
- Premier All-Weather Solution: Excellent performance across diverse and extreme climate zones.
- Outstanding Heat & UV Resistance: Long-term stability under direct sunlight.
- Proven Chemical Stability: Ensures durability and performance over the life of the roof.

DESTINATIONS OF USE ACCORDING TOMARK STANDARDS — CE MARK STANDARDS

CHALLENGER	ROOF WATERPROOFING EN 13707						FOUNDATIONS OR GROUND WATERPROOFING EN 13969	UNDER SLATES OR TILES EN 13859-1	VAPOUR CONTROL EN 13970
	EXPOSED			BALLASTED		ANTI-ROOT ROOF GARDEN			
	SINGLE LAYER	MULTI-LAYER		SINGLE-LAYER	MULTI-LAYER				
		TOP LAYER	UNDERLAY OR INTERMEDIATE LAYER						
CHALLENGER 3.5 mm			▲		▲		▲		
CHALLENGER 4 mm			▲		▲		▲		
CHALLENGER MINERAL 4.5 KG/M²		▲							
CHALLENGER MINERAL 5 KG/M²		▲							

Surface Finish

The lower surface of **CHALLENGER** is laminated with a thin Polyolefinic film (Sacrifice Layer) while the upper surface is covered with Polyethylene film or Mineral Slates or Sand.

Embossed Aluminum 

White Fine Sand 

HDPE Film 

Mineral slates


White


Grey


Green


Red

Versions

3 KG	3.5 KG	4 KG	4.5 KG	2mm	3mm	4mm	5mm

Storage & Handling

CHALLENGER rolls should be kept in an upright position in a flat, properly ventilated and sheltered storage area.

Challenger

Hybrid Modified Bitumen Waterproofing
Membranes With Polyester Reinforcement

تشالنجر

أغشية العزل المائي من البيتومين
المعدل الهجين المقواة بالبوليستر

Properties الخصائص		Test الإختبار	Unit وحدة القياس	Test Method طريقة الإختبار	Tolerance السماحية	Typical Values (Plain) القيم النموذجية	Typical Values (Mineral) القيم النموذجية
Dimensional Properties خصائص الأبعاد		Thickness السمك	mm	EN-1849-1	±5%	4	-
		Mass Per Unit Area الوزن	kg/m²	EN 1849-1	±10%	-	4
		Width العرض	m	EN-1848-1	±1%	1	1
		Length الطول	m	EN-1848-1	±1%	10	10
		Straightness درجة إستواء السطح (الإستقامة)	mm	EN-1848-1	≤	20	20
Compound Properties خصائص الخليط البيتوميني		Softening point (R&B) درجة الليونة	°C	ASTM D-36	≥	150	150
Membrane Properties خصائص الغشاء	Mechanical Properties الخصائص الميكانيكية	Tensile Strength (MAX) مقاومة الشد القصوى					
		Longitudinal طوليا"	N/5cm	EN-12311-1	±20%	1000	1000
		Transverse عرضيا"	N/5cm	EN-12311-1	±20%	650	650
		Elongation @ Break أقصى معدل للإستطالة					
		Longitudinal طوليا"	%	EN-12311-1	±15	45	45
		Transverse عرضيا"	%	EN-12311-1	±15	45	45
		Tearing Strength (Nail-Shank) مقاومة التمزق					
		Longitudinal طوليا"	N	EN-12310-1	±30%	220	220
		Transverse عرضيا"	N	EN-12310-1	±30%	350	350
		Tensile-Tear Resistance مقاومة التمزق - بطريقة الشد					
		Longitudinal طوليا"	N	ASTM D- 5147 . D 4073	±30%	750	750
		Transverse عرضيا"	N	ASTM D- 5147 . D 4073	±30%	550	550
		Resistance to static loading مقاومة الإختراق الإستاتيكي	KG	EN 12730 Method A	≥	25	25
		Resistance to Impact loading مقاومة الإختراق الديناميكي	mm	EN 12691 Method B	≥	1000	1000
	Thermal Properties الخصائص الحرارية	Flow resistance @ ElevatedTemperature الثبات عند درجات الحرارة العالية	°C	ASTM D-5147, EN-1110	≥	140	140
		Cold Temperature Flexibility المرونة عند درجات الحرارة المنخفضة	°C	ASTM D-5147, EN-1109	≤	-10	-10
		Dimensional Stability ثبات الأبعاد					
		Longitudinal طوليا"	%	EN-1107-1	≤	± 0.4	± 0.4
		Transverse عرضيا"	%	EN-1107-1	≤	± 0.4	± 0.4
	Miscellaneous Properties خصائص أخرى	Water Tightness مقاومة نفاذية الماء	Kpa	EN-1928:2000	≥	60	60
		Water Absorption درجة امتصاص الماء	%	ASTM D-5147,UNI 8202/22	≤	3	3
		Vapour Permeability نفاذية بخار الماء	μ	UNI 8202/23 , EN1931	±20%	20000	20000
		Joints Tensile Strength مقاومة الشد عند مناطق التراكب					
		Longitudinal طوليا"	N/5cm	EN 12317	±20%	550	550
		Transverse عرضيا"	N/5cm	EN 12317	±20%	900	900
		Durability : Heat Flow After Thermal Ageing	°C	EN1296, EN 1110	≥	-	120
		Durability : Watertightness After Reaction to Chemicals	kPa	EN 1847 - EN 1928	≥	60	-
		Adhesion Of Granules	%	EN 12039	≤	-	30
		Fire Classification - Extemal Fire Performance تصنيف الحريق - أداء الحريق الخارجي	Class	EN 13501-5		F	F
		Reaction to fire التعامل مع الحريق	Class	EN 13501-1		F	F

The information given in this **Technical Data Sheet** reflects typical median properties based on laboratory tests, and practical experience; subject to the tolerance levels of **UEAtc** directive. However, as the product is often used under conditions beyond our control, we can't warrant but the product itself.

- **± 10%** variance in the values is accepted.
- Tolerance for Tear properties is **± 30%.**
- Tolerances for the above values if not mentioned are according to the UEAtc directives.
- Exact value depends on thickness of the product.
- Product Technical specifications may be updated by **TechnoBit** without prior notice.
- Issue Date of This Technical Data Sheet is **MAY / 2026**
- The Information Provided by This Issue Cancels Any Previous Issues.

ISO 9001 OHSAS 18001 ISO 14001