KISCOTE TPO

Polyolefin TPO Flexible Membrane for Exposed Roof

DESCRIPTION

KISCOTE TPO is a synthetic membrane made from co-extruding a uniform UV resistant elastomerized TPO/FPA thermoplastic olefin and flexible polypropylene. It is the perfect waterproofing solution for many roof of special designs with flat or irregular profiles, and varying materials such as concrete, metal, zinc and others.

RECOMMENDED USES

- Mechanically retained waterproofing on exposed roofs.
- Waterproofing layers loose laid under heavy-duty fixed or movable protection for: roofing exposed to foot traffic and roof gardens.

ADVANTAGES

- Can be used in exposed area
- Excellent adhesion between joints with hot-weld technology
- High strength
- Excellent dimensional stability

PACKAGING

KISCOTE TPO is manufactured in the following dimension;

PRODUCTION STANDARDS

Thickness (*) mm	1.2	1.5	1.8	2.0
Width m	2.10	2.10	2.10	2.10
Length (*) m	25	25	20	20
Colour	Off White / Grey / Black			

(*) Different thicknesses and lengths are available on demand and for minimum quantities.

APPLICATION GUIDELINES

a) Surface Preparation

- Surface must be sound, clean and free of irregularities, loose particles, voids, loose materials, oil, grease, curing compounds, sealers and any foreign matters.
- The remains of separator should be removed.
- Metal plates and rigid plastics should be sanded and dusted.
- Aluminum foils and metals must be pretreated.

b) Application

KISCOTE TPO membranes are applied through hot air gun on their overlapping joints, as no adhesives or other materials of any kind are required. Design solutions and application methods are illustrated in the technical manual published by KENSETSU INTERNATIONAL APPLICATION MANUAL. Waterproofing systems employing KISCOTE TPO membranes should be laid by installers authorized by KENSETSU INTERNATIONAL.

STORAGE

KISCOTE TPO should be stored in sealed original packing at room temperature up to 12 months from date of manufacturing.

HEALTH & SAFETY

Refer to SDS for further information.

TECHNICAL PROPERTIES

KISCOTE TPO							
Features[1]	EN Standards	U.M.	Tolerance	Values			
Standard thickness	1849-2	mm	(-5/+10%)	1,2	1,5	1,8	2,0
Density	1849-2	kg/^{2}	(-5/+10%)	1,08	1,35	1,62	1,8
Tensile properties							
Tensile strength	ASTM D412	N/mm^2		≥ 28 MPa			
* Elongation at break L/T	12311-2	%		600/600			
Dimensional stability	1107-2	%		≤ 0.5			
Cold flexibility	495-5	°C		≤ -40[2]			
Tear resistance L/T	12310/1	N		330/240	450/400	550/500	650/600
Water vapour permeability	ASTM E96	g/m^2/hr		0			
Resistance to hydrostatic pressure	ASTM 5385	m		≥ 70			
Resistance to puncture	ASTM D154	N		≥ 1000			
Resistance to lateral Water Migration	ASTM D5385			Compliant			
Water tightness (60kPa)	1928			Absolute			
Joint strength							
* Tensile strength	12317-2	N/cm		Compliant (specimen fails outside bond area)			
* Peeling	12316-2	N/cm		≥ 58			
Durability							
* Resistance to artificial UV light	1297-5000h			No surface damage or significant changes in cold flexibility as per EN 495/5			
Heat aging in area							
* Change in tensile strength	12311-2	Δ%		-5			
* Change in elongation at break	12311-2	Δ%		-5			
Wind load resistance (wind suction test) (UEAtc)							
* Mechanically retained system	Pa			≥ 5500			
Reaction to fire	13501-1			Class E [3]			
Resistance to algae and microorganisms	ISO 846 Level 2			Compliant			
Root resistance	13948			Passes the test			
Contact with drinking water (DW)	Italian Ministerial Degree 26-04-93 n. 220 – 0, J. No.162/13-07-1993 and subsequent amendments			Suitable			

Notes: (1) Tolerances as per EN 1396 and/or UEAtc Directives.
(2) Not tested at lower temperatures.
(3) Based on Warringtonfiregent – Classification Report for roofs/roof coverings exposed to external fire Nr 13561B.
(*) Not tested at higher speeds.