

TECHNICAL DATA SHEET

160gsm Breathable Roofing Membrane / Roof Underlay

Document No.	KOS-TDS-RM160-2026	Revision	00
Issue date	22 August 2026	Customer / project	General product release
Document status	OFFICIAL CONTROLLED TDS	Approval status	APPROVED FOR ISSUE

Product name	160gsm Breathable Roofing Membrane
Product type	Flexible roofing underlay
Construction	3-layer PP nonwoven / breathable film / PP nonwoven
Nominal mass	160 g/m ²
Standard roll	1.50 m x 50 m (75 m ²); other widths available
Colour	Customisable
Primary use	Pitched roofs, tiled roofs and ventilated roofing systems
OEM printing	Available
Manufacturing	China and Indonesia

1. Product Description

KOSITE 160gsm Breathable Roofing Membrane is a lightweight, water-resistant and vapour-permeable roof underlay designed for use beneath tiles, metal roofing and other discontinuous roof coverings. The three-layer construction helps protect the roof assembly from wind-driven rain while allowing water vapour to escape from the building envelope.

2. Key Features

- Water resistance suitable for use as a secondary weather-protection layer
- High vapour permeability to support drying of the roof assembly
- Good tensile and tear resistance for installation and site handling
- Lightweight, easy to cut, roll out and install
- Compatible with battens, counter-battens and ventilated roof systems

3. Technical Properties

Property	Test method / reference	Declared value	Tolerance / class	Status / remarks
Mass per unit area	EN 1849-2 / ISO 9073-1	160 g/m ²	±5%	Nominal
Total thickness	EN 1849-2	Approx. 0.45 mm	±0.05 mm	Indicative; method-dependent
Roll width	Internal measurement	1.50 m	±1%	Other widths available
Roll length	Internal measurement	50 m	-0 / +1%	Standard roll
Roll area	Calculated	75 m ²	Nominal	Based on 1.50 x 50 m
Water tightness	EN 1928, Method A	Pass	Class W1	For EN 13859-1 roof application
Water vapour resistance (Sd)	EN ISO 12572	Sd ≤ 0.015 m	Vapour permeable	Declared value
Tensile strength - MD	EN 12311-1 / EN 13859-1	280 N/50 mm	±15%	Typical; not a guaranteed minimum
Tensile strength - CD	EN 12311-1 / EN 13859-1	200 N/50 mm	±15%	Typical; not a guaranteed minimum
Elongation - MD	EN 12311-1	40-80%	Typical range	Indicative
Elongation - CD	EN 12311-1	50-100%	Typical range	Indicative
Nail shank tear - MD	EN 12310-1	120 N	±15%	Typical
Nail shank tear - CD	EN 12310-1	100 N	±15%	Typical
Artificial ageing / durability	EN 1297	UV exposure: 3 months	Typical	Cover after exposure period

4. Application and Installation

- Install with the printed side facing outward unless otherwise specified.
- Lay horizontally or vertically according to the roof design and local installation practice.
- Provide adequate overlaps at horizontal and vertical joints; seal joints where required by the project specification.
- Use compatible tapes and flashing accessories around penetrations, valleys, eaves, ridges, windows and roof-to-wall transitions.
- The membrane is not intended as a permanently exposed roof covering and must be covered within the permitted exposure period.

5. Packaging and Storage

Standard roll: 1.50 m x 50 m (75 m²; approximately 12.00 kg based on nominal mass). Individually wrapped; export pallet packing available. Store upright, dry and covered, protected from sunlight, UV, heat, moisture and physical damage. Recommended storage temperature: 5-35°C.

6. Technical Status and Compliance

This Official Controlled TDS is issued by PT KOSITE NEW MATERIALS for the KOSITE 160gsm Breathable Roofing Membrane. The declared tensile strength is 280 N/50 mm $\pm 15\%$ in the machine direction (MD) and 200 N/50 mm $\pm 15\%$ in the cross direction (CD). These are typical values and are not guaranteed minimum values. Product specifications are subject to the stated tolerances.

Certificate of Conformity No. VCP-12263 identifies PT KOSITE NEW MATERIALS as Applicant and Producer, includes the 160gsm model, and references EN 13859-1:2014 and EN 13859-2:2014. It is a voluntary third-party conformity document and is not described as a CE or UKCA certificate. No reaction-to-fire classification is declared in this TDS.

7. Document Control

Control role	Responsible function	Name / signature	Date
Prepared by	Technical Department		
Reviewed by	Quality Department		
Approved by	Authorised Signatory		

Revision History

Revision	Issue date	Description	Approval status
00	22 August 2026	Initial official controlled issue for customer release	APPROVED FOR ISSUE