

# The Don & Low Building Envelope



Specified Membranes  
for the Construction Industry

[donlow.co.uk](http://donlow.co.uk)



## Built On Tradition, Driven By Innovation Since 1792

Don & Low has a rich history dating back over 230 years, marked by a legacy of innovation, resilience and dedication to excellence. Initially founded in 1792, Don & Low began as a small woven textile manufacturer in Scotland, gradually expanding its operations and diversifying its production capabilities over the years. Through strategic investments in technology and a relentless pursuit of quality, the company has evolved into a leading vertically integrated manufacturer, specialising in the production of construction membranes, geotextiles and industrial textiles and yarns.

All Don & Low construction fabrics are made in the UK, from polymer pellets through to finished membranes. Being a vertically integrated manufacturer also means that every step of the production process is meticulously controlled in-house. This level of integration allows Don & Low to maintain the highest standards of quality, consistency and sustainability throughout the company's operations, providing the construction industry with superior membranes that meet the ever-increasing demand for buildings that excel in technical performance and comply with new and emerging regulatory standards.

## Don & Low Specifies Construction Excellence

- Over 35 years of expertise in nonwovens production.
- Vertically integrated, UK manufacturing.
- Dedicated, in-house R&D team of engineers and scientists.
- State-of-the-art production lines and fault detection systems.
- Unrivalled print and colour customisation.
- Environmental responsibility: membranes are recyclable, made partly with recycled materials and come with EPD reports.
- Guaranteed stock availability and fast delivery times.
- Technical and sales support delivered by a dream-team of experts.







# The Forever Original Air and Vapour Permeable Roofing Membrane

Introduced in 1996 by Don & Low, Roofshield® was the first air and vapour permeable roofing underlay to hit the UK market, revolutionising an entire industry. With its advanced technology, this versatile and easy to install three-layer membrane allows the passage of moisture to significantly reduce the incidence of interstitial condensation and mould growth in pitched roofs, while also providing a

superior, weather-proof secondary barrier. By eliminating the need for ventilation, Roofshield® speeds up roof completion and reduces labour costs. As a testament to its consistent performance and reliability, Roofshield® is certified by the BBA in the UK for use in unventilated cold and warm pitched roofs, in both fully supported and unsupported roofing applications.

Test	Method	Roofshield®			
Mass Per Unit Area	EN 1849-2	196 g/m²			
Wind Zone		1-5*			
Reaction to Fire	EN 11925-2	Class E			
Water Vapour Resistance (Sd)	EN ISO 12572	0.013 m			
Air Permeability (50 Pa)	EN 12114	≥34.4 m³/m².hr50Pa			
Water Penetration	EN 1928	Class W1 before & after ageing			
Tensile Strength (N/5cm)	EN 12311-1	Before ageing	MD	390	CD 230
		After ageing	MD	330	CD 190
Elongation (%)	EN 12311-1	Before ageing	MD	55	CD 75
		After ageing	MD	40	CD 60
Tear Resistance (N)	EN 12310-1		MD	230	CD 275
Flexibility at low temperature	EN 1109	No cracking at minus 60°C			

MD = machine direction, CD = cross/transverse direction  
\*see technical datasheet



roofing



# A Cut Above.



With almost 30 years of continuous use and rigorous testing, Roofshield® is the real deal in air and vapour permeable roofing membranes.



# High-Performance Vapour Permeable, Air Barrier Roofing Underlays

**RoofTX®** is a range of low resistance vapour permeable, air barrier underlays, specifically engineered to enable the passage of moisture while effectively resisting air penetration. The RoofTX® range consists of six distinct products, each differing in weight and properties, catering to diverse project requirements. It is also well-suited for fully supported or unsupported cold and warm systems. Offering a lightweight alternative to traditional bituminous felts, with excellent

flexibility even at low temperatures, RoofTX® is certified by the BBA for the UK and by the NSAI for the Irish market. The RoofTX® range is also available in RoofTX® Conseal versions, boasting a single, factory applied, integral tape for easier installation and overlaps sealing. The RoofTX® Range is also available with a double integral tape for ease of installation, enhanced wind uplift and air tightness. These are sold as the Conseal Range.

Product	Weight	Wind Zone	Tensile Strength (N) after ageing	Tensile Strength (N) before ageing	Tear strength	Water penetration	Reaction to Fire
RoofTX® Optima	92 g/m <sup>2</sup>	1-4 <sup>1</sup>	MD 190N/ CD 100N	MD 230N/ CD 125N	MD 75N/ CD 80N	W1	CLASS E
RoofTX® Prime	102 g/m <sup>2</sup>	1-5 <sup>1</sup>	MD 200N/ CD 100N	MD 250N/ CD 140N	MD 100N/ CD 95N	W1	CLASS E
RoofTX® Ultra	112 g/m <sup>2</sup>	1-5 <sup>2</sup>	MD 220N/ CD 125N	MD 260N/ CD 150N	MD 105N/ CD 100N	W1	CLASS E
RoofTX® 125	125 g/m <sup>2</sup>	1-5 <sup>3</sup>	MD 240N/ CD 140N	MD 285N/ CD 165N	MD 125N/ CD 120N	W1	CLASS E
RoofTX® Pro	150 g/m <sup>2</sup>	1-5 <sup>4</sup>	MD 230N/ CD 140N	MD 325N/ CD 295N	MD 225N/ CD 300N	W1	CLASS E
RoofTX® Maxi	170 g/m <sup>2</sup>	1-5 <sup>4</sup>	MD 340N/ CD 220N	MD 400N/ CD 260N	MD 190N/ CD 190N	W1	CLASS E

MD = machine direction, CD = cross/transverse direction

- <sup>1</sup> taping is required for wind zones 1-4
- <sup>2</sup> taping is required for wind zones 2-5
- <sup>3</sup> taping is required for wind zones 3-5
- <sup>4</sup> taping is required for wind zones 5



Vapour Permeability  
Meets Enhanced  
Durability



# Roofer's Brew.



Vapour permeable, durable and competitively priced, RoofTX® ensures your roof's longevity by tackling condensation-related problems. Because roofs built to last are Don & Low's cup of tea.



# High Resistance Air and Vapour Barrier Roofing Underlays for pitched roofs

**MultiTX®** is a family of high-resistance air and vapour barrier roofing membranes designed as a modern, cost-effective, lightweight alternative to traditional bituminous-based felts. The extended MultiTX® range consists of four distinct products, differing in weight and design: **MultiTX® Plus** (116g), **MultiTX® Pro** (146g) and **MultiTX® Maxi** (190g) are certified by the BBA for use in tiled and slated ventilated pitched roofs, in both supported and unsupported applications. MultiTX® Solar, designed specifically for integrated solar roofs, completes the family. The MultiTX® Range is also available with a double integral tape for ease of installation, enhanced wind uplift and air tightness. These are sold as the Conseal Range.

Product	Weight	Wind Zone	Tensile Strength (N) after ageing	Tensile Strength (N) before ageing	Tear strength	Water penetration	Reaction to Fire
MultiTX® Plus	116 g/m <sup>2</sup>	1-5 <sup>1</sup>	MD 220N/ CD 140N	MD 260N/ CD 170N	MD 140N/ CD 130N	W1	CLASS F
MultiTX® Pro	145 g/m <sup>2</sup>	1-5 <sup>2</sup>	MD 200N/ CD 150N	MD 290N/ CD 220N	MD 230N/ CD 250N	W1	CLASS F
MultiTX® Maxi	190 g/m <sup>2</sup>	1-5	MD 280N/ CD 210N	MD 400N/ CD 300N	MD 300N/ CD 400N	W1	CLASS F

MD = machine direction, CD = cross/transverse direction

- <sup>1</sup> taping is required for wind zones 3-5
- <sup>2</sup> taping is required for wind zones 5

roofing



The Ultimate Roofing Barrier

 **MultiTX®**

# Muscle Up Your Roof.



The extended MultiTX® range blocks the flow of air and vapour like a boss, providing a fantastic modern alternative to traditional bituminous based felts.





# The Ultimate Solution for Integrated Solar Roofs

Regarding solar panel integration, regulatory bodies have introduced stringent standards in recent years to ensure their safety and efficiency. From Part L regulations and The Future Homes Standard to the NHBC Standards, builders and developers face a myriad of requirements aimed at optimising energy performance and minimising environmental impact. Central to these regulations is the need for proper ventilation within integrated solar roofs – a crucial element in preventing moisture buildup and ensuring long-term durability.

With **MultiTX® Solar**, builders now have a solution that addresses all regulation requirements head-on. MultiTX® Solar

is a three-layer, high-resistance air and vapour barrier roofing underlay designed as a modern, cost-effective alternative to traditional high-resistance roofing underlays, such as bituminous-based felts. MultiTX® Solar is ideal for conventional ventilated pitched roofs, whether cold or warm. It offers excellent temporary protection against the elements, while its lightweight and easy-to-cut design simplifies installation, minimising manual handling concerns and ensuring flexibility even in low temperatures.

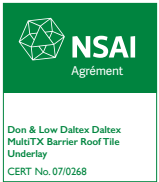
The MultiTX® Solar is also available with a double integral tape for ease of installation, enhanced wind uplift and air tightness.

Product	Weight	Wind Zone	Tensile Strength (N) after ageing	Tensile Strength (N) before ageing	Tear strength	Water penetration	Reaction to Fire
MultiTX® Solar	145 g/m²	1-5 <sup>1</sup>	MD 200N/ CD 150N	MD 290N/ CD 220N	MD 230N/ CD 250N	W1	CLASS F

MD = machine direction, CD = cross/transverse direction

<sup>1</sup> taping is required for wind zones 5

roofing



Unleash Your  
Roof's Potential



# Sun of a Pitch.



MultiTX® Solar will get your roof sun-ready to reap the benefits of solar power, guaranteeing simple installation and regulatory compliance.



## Wind Zones

Wind Zones are defined in clause 3.7 of BS 9250 : 2007 for use in unsupported systems with a well-sealed ceiling with a ridge height of  $\leq 15$  m, a pitch between  $12.5^\circ$  and  $75^\circ$  and a site altitude of  $\leq 100$  m and where topography is not significant. For all other cases, the required uplift resistance should be determined using BS 5534 : 2014 using data available from Don & Low.



### Why choose Don & Low membranes over other breather membranes/vapour control layers when working towards the FHS?

- **UK Production:** Reduced carbon emissions due to domestic manufacturing. Our Environmental Product Declarations (EPDs) provide transparent carbon data for our products.
- **Reflective Foils:** Reflectashield® and VapourTX® Thermo reduce U-Values, aiding in meeting FHS requirements.
- **Building Airtightness:** VapourTX® Thermo improves overall building airtightness, fulfilling FHS standards.
- **Reduced Insulation Thickness:** Our reflective membranes can decrease wall insulation thickness, reducing building outline, brick, and concrete usage. This leads to lower carbon emissions, costs, and build time.
- **Timber Frame Focus:** Primarily for timber frame construction, which stores carbon, enhancing the build's overall carbon footprint.

### The difference in performance between breather and non-breather membranes

- **Terminology Clarification:** The difference in performance lies in their permeability to air and moisture. Breather membranes allow air passage and are typically vapour-permeable, while non-breather membranes are airtight and vapour-tight. However, it's important to note that most walling membranes are called breathers despite only being vapour permeable.
- **AVCLs:** Air and Vapour Control Layers are airtight and vapour-tight, used internally to enhance airtightness and reduce air/heat loss. This aligns with FHS requirements and supports the efficiency of ambient heating systems by limiting air changes to no more than two per hour. AVCLs also prevent vapour from entering the structural frame, avoiding interstitial condensation and dampness.
- **Breather Membranes:** These vapour-permeable membranes act as temporary weather barriers until the final façade is applied. They allow moisture accumulated during construction to escape from the structural frame into the atmosphere during the drying process.

Thermal  
Excellence  
Inside Out

 **Reflectashield**®  
 **VapourTX**®  
THERMO

# It's a Wrap.



Reflectashield® and VapourTX® Thermo work together to maximise energy efficiency and ensure lasting durability, offering the ultimate solution for superior thermal performance.



# Reflectashield®

## Reflective Breather Walling Membrane

**Reflectashield®** is a walling membrane engineered to enhance the thermal performance of timber frame, steel frame and modular build-ups when installed on the cold side of the insulation. Due to its aluminium foil lamination, Reflectashield® has a low emissivity, making it perfect for unventilated airspace scenarios. Beyond its reflective properties, Reflectashield® offers a host of benefits that redefine conventional standards.

Acting as a temporary weather-resistant covering until the final façade installation, it provides essential protection during construction phases. At the same time, its low vapour resistance aligns with BS5250 regulations, minimising the risk of harmful condensation build-up within the frame. For optimal thermal efficiency, Reflectashield® can be used with VapourTX® Thermo on the warm side of the insulation.

TEST		Reflectashield®
Product Code		RFL 134
Mass Per Unit Area (g/m²)		134g/m² (+/- 13 g/m²)
Reaction to Fire		Class E
Water Vapour Resistance (Sd)		0.083 m (+/- 0.011)
Water Penetration		Class W2 Before & After ageing
Tensile Strength (N/5cm)	Before ageing	MD 230/CD 150
	After ageing	MD 190/CD 130
Elongation (%)	Before ageing	MD 60/CD 80
	After ageing	MD 45/CD 50
Tear Resistance (N)		MD 160/CD 160
Air Permeability (50Pa)		28.0 m³/m²/hr
Emissivity		0.05
Thermal resistance (m²K/W)		0.81 horizontally

walling



# VapourTX® RANGE

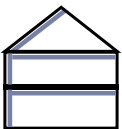
## High Resistance Vapour Control Layers

**VapourTX®** are high-resistance vapour control layers (VCLs) designed to reduce water vapour transfer through the building or structure when placed on the warm side of the insulation. VapourTX® VCL products are ideal for various construction applications, including walls, ceilings and floors.

The VapourTX® family includes **VapourTX® Thermo**, which boasts a highly reflective aluminium foil and excels in creating a

low-emissivity environment when faced with unventilated airspace. From timber and steel frames to modular and masonry buildups, when VapourTX® Thermo is positioned on the warm side of the insulation, it acts as an airtight barrier, reducing the risk of condensation buildup and ensuring compliance with BS5250 standards. For optimal thermal efficiency, it can be paired with Reflectashield® on the cold side of the insulation.

TEST	VapourTX® 116	VapourTX® 146	VapourTX® Thermo*
Product Code	VCL 116	VCL146	RCL 142
Mass Per Unit Area (g/m²)	116	146	142
Reaction to Fire	Class F	Class F	Class E
Water Vapour Resistance (Sd)	15m	15m	150 m
Vapour Resistance (MN/sg)	750	750	750
Water Penetration	Class W1	Class W1	Class W1
Tensile Strength (N/5cm)	MD 240/CD 150	MD 270/CD 180	MD 260/CD 200
Elongation (%)	MD 60/CD 70	MD 70/CD 70	MD 59/CD 70
Tear Resistance (N)	MD 170/CD 150	MD 190/CD 170	MD 155/CD 155
Thermal Resistance (m²K/W)			0.79 horizontally / 0.58 vertically







# High Performance Air & Vapour Permeable Walling Membrane

**Frameshield®** is a spunbond polypropylene fabric designed to be used as a high-performance air and vapour-permeable roofing membrane in timber and steel frame constructions. Once installed, the permeability of Frameshield® allows the controlled escape of vapour from within the timber or steel frame, reducing the risk

of interstitial condensation. Extensively used in timber frame construction for over 20 years, Frameshield® is stabilised against UV degradation and provides effective protection against wind-driven rain, moisture, snow and dust during construction.

TEST			Frameshield®
Product Code			FUV 100
Mass Per Unit Area (g/m²)			100g/m² (+/- 6 g/m²)
Reaction to Fire			Class E
Water Vapour Resistance (Sd)			0.006 m (+/- 0.002)
Water Penetration			Class W2 Before & After ageing
Tensile Strength (N/5cm)	Before ageing		MD 240/CD 180
	After ageing		MD 200/CD 150
Elongation (%)	Before ageing		MD 85/CD 100
	After ageing		MD 45/CD 60
Tear Resistance (N)			MD 135/CD 145
Air Permeability (50Pa)			704 m³/m²/hr



walling



# Multi-purpose membrane for roofs, timber and steel frame walls

**FrameTX® Maxi** is a multi-purpose membrane designed to be used as a high-performance air barrier and vapour permeable roofing underlay & walling membrane in timber and steel frame constructions. It offers Class W1 water resistance which can be used as a walling membrane in coastal areas as defined by the STA.

Once installed, the permeability of FrameTX® Maxi allows the controlled escape of vapour from within the timber or steel frame reducing the risk of interstitial condensation, whilst maintaining an air-tight barrier to reduce air leakage and improve the building's thermal performance.

TEST			FrameTX® Maxi
Product Code			FNS 102
Mass Per Unit Area (g/m²)			102g/m² (+/- 10 g/m²)
Reaction to Fire			Class E
Water Vapour Resistance (Sd)			0.029 m (+/- 0.01)
Water Penetration			Class W1 Before & After ageing
Tensile Strength (N/5cm)	Before ageing		MD 250/CD 140
	After ageing		MD 200/CD 100
Elongation (%)	Before ageing		MD 60/CD 70
	After ageing		MD 40/CD 50
Tear Resistance (N)			MD 100/CD 95
Air Permeability (50Pa)			0.010 m³/m²/hr





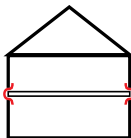
# Low Resistance Vapour Permeable Air Barrier Floor Cassette Membrane

**FloorTX® FCM** provides an air- and water-tight envelope around the external face of floor cassettes. Thanks to its excellent resistance to water penetration and vapour transmission properties, FloorTX® FCM offers temporary protection for the structure from wind-driven rain and snow whilst remaining vapour permeable to

minimise condensation forming at the edge of the floor cassettes and junction with the wall panels. Additionally, sealing FloorTX® FCM to the air and vapour barrier on the wall panels provides air-tightness to the intersection between the floor cassette and walls.

TEST	FloorTX® FCM	
Product Code		FNS 125
Mass Per Unit Area (g/m²)		125
Reaction to Fire		Class E
Water Vapour Resistance (Sd)		0.029 m
Water Penetration		Class W1
Tensile Strength (N/5cm)	Before ageing	MD 285/CD 165
	After ageing	MD 240/CD 140
Elongation (%)	Before ageing	MD 70/CD 90
	After ageing	MD 30/CD 40
Tear Resistance (N)		MD 125/CD 120
Flexibility at low temperature	No cracking at minus 40°C	

flooring



# Flame retardant temporary floor protection

It is essential to protect existing carpets and flooring from accidental damage during internal works and renovations. Loosely laid around the work area, **FloorTX® FR** is a single-layer, nonwoven spunbond with an added flame retardant treatment used in protective flooring, furniture and bedding

(non-visible). This product offers long-lasting, durable protection. FloorTX® FR inhibits and resists the spread of fire while being compliant with the relevant British standards.

TEST	FloorTX® FR		
Product Code			TFR
Fabric weight (g/m²)		50	100*
Tensile Strength (N)	MD	130	250
	CD	90	180
Tear Strength (N)		8	10
Fire Retardant	Source 5		

\* 100g/m² Grey(E5)TFR certified by the BRE Loss Prevention Certification Board (726a/02).  
MD = machine direction, CD = cross/transverse direction



# Tapes

## Reflective Tape

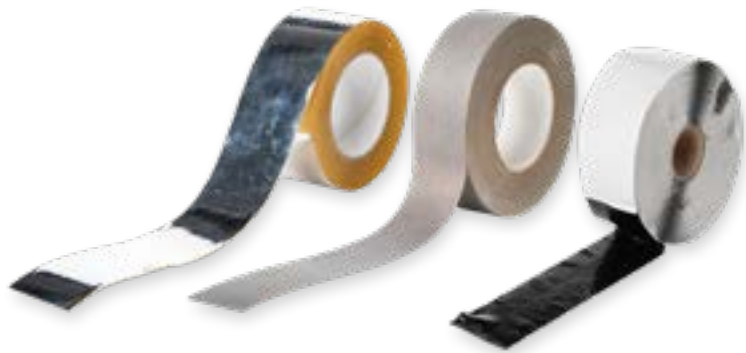
For Air & Vapour Control Layers, Damp Proof Membranes & Gas Barriers

## Butyl Tape

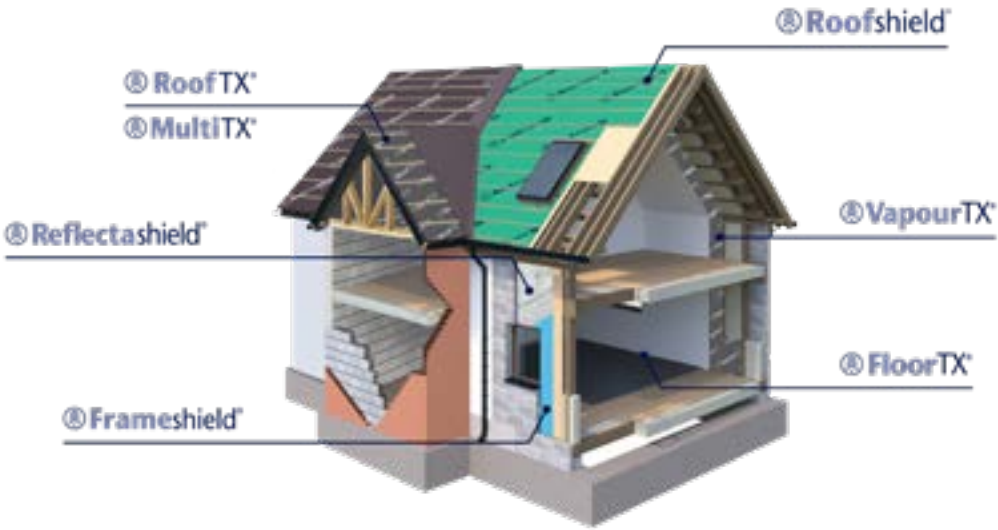
For Air & Vapour Control Layers, Damp Proof Membranes & Gas Barriers

## Reinforced Tape

For Breather Membranes



# The Don & Low Building Envelope



## Logistic information

Roofing	Air Permeable, Vapour Permeable					
	Product & Brand		Dimensions & Packaging			
	Brand Name	Weight	Roll Dimensions	Roll Weight	Rolls/Pallet	Pallet Weight
	Roofshield	196gsm	100cm x 50m	9.8kg	25	245kg
			150cm x 50m	14.7kg	23	338.1kg
	Vapour Permeable / Air Barrier					
	RoofTX Optima	92gsm	100cm x 50m	4.6kg	49	238.4kg
			150cm x 50m	6.9kg	46	330.4kg
	RoofTX Prime	102gsm	100cm x 50m	5.1kg	36	196.6kg
			150cm x 50m	7.65kg	39	265.5kg
	RoofTX Ultra	112gsm	100cm x 50m	5.6kg	36	213.6kg
			150cm x 50m	8.4kg	33	290.2kg
	RoofTX 125	125gsm	100cm x 50m	6.25kg	36	238.0kg
			150cm x 50m	9.38kg	33	322.4kg
	RoofTX Pro	150gsm	100cm x 50m	7.5kg	New - Not palletised	
			150cm x 50m	11.25kg		
	RoofTX Maxi	170gsm	100cm x 50m	8.5kg	25	225.5kg
			150cm x 50m	12.75kg	25	331.7kg
	RoofTX Extra	230gsm				
	Air Barrier / Vapour Barrier					
MultiTX Plus	116gsm	100cm x 45m	5.22kg	49	268.8kg	
		150cm x 45m	7.83kg	42	341.9kg	
MultiTX Pro	145gsm	100cm x 45m	6.53kg	New - Not palletised		
		150cm x 45m	9.79kg			
MultiTX Maxi	190gsm	100cm x 45m	8.55kg	New - Not palletised		
		150cm x 45m	12.83kg			
Walling	Product & Brand		Dimensions & Packaging			
	Reflectashield / FrameTX Thermo	134gsm	255cm x 100m	34.2kg	16	560.2kg
			270cm x 100m	36.2kg	16	592.2kg
			290cm x 100m	38.9kg	16	635.4kg
	Frameshield / FrameTX	100gsm	270cm x 100m	27.0kg	16	457.0kg
			300cm x 100m	30.0kg	16	505.0kg
	FrameTX Maxi	102gsm	100cm x 50m	6.25kg	36	238.0kg
			150cm x 50m	9.38kg	33	322.4kg
Vapour Control Layers	Product & Brand		Dimensions & Packaging			
	VapourTX	116gsm	100cm x 50m	5.8kg	36	221.8kg
			150cm x 50m	8.7kg	33	300.1kg
	VapourTX Pro	146gsm	100cm x 100m	14.6kg	16	246.6kg
			150cm x 100m	21.9kg	16	363.4kg
	Reflectatherm / VapourTX Thermo	142gsm	150cm x 50m	10.65kg	25	278.25kg
			270cm x 100m	38.34kg	16	638.44kg
			300cm x 100m	42.6kg	16	706.6kg
Flooring	Product & Brand		Dimensions & Packaging			
	FloorTX FCM	125gsm	100cm x 50m	6.25kg	36	238.0kg
			150cm x 50m	9.38kg	33	322.4kg
	FloorTX FR	100gsm	100cm x 100m	10.0kg	25	264.0kg
			200cm x 100m	20.0kg	16	333.0kg

\*Other sizes available on request





## Innovation & Customisation

Don & Low stands out as the UK's sole fully integrated manufacturer of construction membranes. We oversee every aspect, from polymer pellets to creating finished, high-quality, technically advanced, and eco-friendly membranes. These membranes, containing a minimum of 20% recycled material, are designed to meet new regulatory standards, ensuring quality and product performance consistency.

Our extensive customization options are more than just providing various prints and colours. They are a strategic tool for brand differentiation, helping our clients to shine in a competitive market. By offering unique and tailored solutions, we empower our clients to strengthen their market position, build brand recognition, and more effectively engage with their target audiences.

Our unwavering commitment to innovation is not just a claim but a core value that drives every step of our product development process. From design and raw material selection to sampling, validation, and final manufacturing, we are dedicated to staying at the forefront of our industry. This ensures that our clients are always equipped with the most advanced and effective solutions, inspiring confidence in our brand.



**Being the UK's only vertically integrated construction membrane manufacturer, Don & Low produces all of its construction fabrics in-house, ensuring consistent quality and performance.**



**Don & Low**  
MEMBER OF THRACE GROUP

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**Built on Tradition,  
Driven by Innovation  
Since 1792**

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