TOUGHSTEP®
WHEN THE GOING GETS TOUGH

DESIGNED IN THE UK | PROUD MEMBER | COMMITTED TO SAFETY AND QUALITY
LOW VOC/FORMALDEHYDE IN ALL PU FOAM AND WOOL UNDERLAYS

ToughStep®

Ideal for areas requiring a double-stick method or firm touch of luxury with ultra high density PU foam.

2.2 - 2.9 *TOG*
BS4745

39 - 45 *dB (ΔLW)*
BS EN ISO 10140-3 Impact Sound

ToughStep®	7mm	9mm	Testing Method
Construction	PU & Viscoelastic Foams		
Density	165 kg/m³	165 kg/m³	
Thickness	7mm	9mm	
Tog Rating	2.2 TOG	2.9 TOG	BS4745
Noise Reduction	39 dB (ΔLW)	45 dB (ΔLW)	BS EN ISO 10140-3 Impact Sound
Acoustic Absorption		0.25αw	BS EN ISO 354:2003
R-Value	0.22m² K/W	0.29m² K/W	
U-Value	4.54W/m²K	3.44W/m²K	
Thermal Conductivity	0.031W/mK	0.031W/mK	
Area Coverage	10m² (1.37 x 7.3m)	10m² (1.37 x 7.3m)	
Roll Dimensions	30 x 30 x 137 cm	30 x 30 x 137 cm	
Double Stick Applications?	Yes	Yes	

Recommended End Use Classifications

HC/U	Heavy contract use, suitable for heavy foot and wheel traffic and castor chairs

Product Specifications

Top Surface	Non Woven Chequered printed backing suitable for permanent bond glue
Bottom Surface	PE Printed Backing suitable for slow release glue
Guarantee	Lifetime of initial carpet installation (when used in recommended areas), Wilsons bonding tape must be used
Installation Method	Important: Read instructions on final page

Environmental Credentials

Recycled Content	*Environmentally Friendly:* 100% recycled foam content, which is 100% recyclable after use.

All underlay joins must be bonded with our Wilsons Bonding Tape *to ensure the warranty is valid. It has been manufactured to work exclusively with our underlays.*

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Wilsons Underlays
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And now for the science-y bit...

This is where you wish you'd paid more attention in school!

Technical Specifications to BS EN 14499:2015 (BS5808)

Testing		Method
Breaking Strength (maximum force)	≥30N in each direction	BS EN ISO 13934-1:2013
Thickness loss of static loading *short term after 1 h recovery*		ISO 3416:1986 (2012)
Fibrous underlay	≤ 40 %	
Non-fibrous underlay	≤ 15 %	
Combined underlay	≤ 40 %	
Thickness loss of dynamic loading		BS ISO 2094:1999 (2015)
Fibrous underlay	≤ 40 %	
Non-fibrous underlay	≤ 15 %	
Combined underlay	≤ 40 %	
Thickness	≥ 4.0 mm	ISO 1765:1986 (2012)
Thickness deviation *from max to min*		ISO 1765:1986 (2012)
Fibrous or combined underlay	≤ 4 mm	
Non-fibrous underlay	≤ 3 mm	
Resistance to breaking or cracking	No cracks greater than 50 mm along the fold No cracks in backing	BS EN 14499:Annex A:2015
Compression after dynamic loading	Minimum 2 mm, Maximum 8 mm	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)
Work of compression after dynamic loading	Minimum 50 J/m², Maximum 200 J/m²	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)
Retention of original work of compression	≥40 %	BS 4098:1975 (2003) and BS ISO 2094:1999 (2015)

Flammability Classification

Conforms to British Standards BS4790

Formaldehyde Testing Results

Time Interval (Days)	Formaldehyde (µg/m³)
28	Not detected

Limit of detection for formaldehyde is 2.0 (µg/m³)

VOC Results:

Carcinogenic compound as defined in Annex VI to Regulation (EC) No. 1272/2008

	LCI value[+1]	Emissions @ 28 days	R Value[+2] @ 28 days
Cas No.	µg/m³	µg/m³	Unitless
Not detected	Not detected	Not detected	Not detected

VOC Results: TVOC

Cas No.	µg/m³	µg/m³	Unitless
	N/A	Not detected	Not detected

Limit of quantification for VOC - 5 µg/m³ per component/
Limit of detection for VOC - 1 µg/m³ per component

The following compounds were detected below the limit of quantification - Dodecane, tetramethylbutanedinitrile, nonanal, xylene

ÉMISSIONS DANS L'AIR INTÉRIEUR A+ A+ A B C

Indoor Air Quality Test

Tested to ISO 16000

Regulation or protocol	Conclusion
French VOC Regulation	A+
French CMR components	Pass
Italian CAM Edilizia	Pass
ABG/AgBB	Pass
Belgian Regulation	Pass
EMICODE	EC 1 PLUS
Indoor Air Comfort	Pass
Indoor Air Comfort GOLD	Pass
Blue Angel (DE-UZ 156)	Pass
BREEAM International	Exemplary Level
BREEAM NOR	Exemplary Level
EU Taxonomy	Pass
LEED v4.1 BETA (outside U.S.)	Pass

Manufactured by Wilsons Underlays Ltd, West Yorkshire, UK.
To view our full terms and conditions, visit **wilsons-underlays.co.uk/terms-conditions**.

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ToughStep®
Installation Instructions

Always remember to follow Code of Practice:

BS 5325: 2001 Code of practice for installation of textile floor covering

First things first

Not all carpets are suitable for double stick installation so please check with the carpet manufacturer to ensure that they are happy with this method of installation. It is important to allow the underlay to acclimatise to room temperature for as long as practical, room temperature should be at least 18°C and the relative humidity should not exceed 65%.

The following instructions are intended to act as additional notes to this code of practice and to cover or emphasise those details relating to the installation of ToughStep. Please also refer to the specific instructions of the carpet manufacturer.

Sub floor conditions and floor preparation

In general sub floor conditions should comply with the requirements of the Code of Practice quoted above. A lot of effort goes into these standards and codes of practice with the aim of getting the best installation, so our advice is to take a look at them.

Basically, it says that all sub floors should be clean, dry, level and structurally sound and free from any cracks and contamination. All cracks and holes should be adequately repaired to ensure a smooth finished appearance, patching and levelling compounds must be suitable for the end use application and must becompatible with any adhesives that may be used. Very absorbent or dusty subfloors should be primed with a primer compatible with the adhesive to be used. Wooden floors showing warping, shrinkage or unevenness must be made good before continuing. Wax or varnish should be removed as these treatments can affect the adhesive bond.

Concrete floors laid direct to ground should incorporate a continuous damp proof membrane. Installation should only take place on subfloors where the relative humidity has fallen below 75% when tested in accordance with BS 5325: 2001.

Asphalt floors must be isolated by applying a compatible 3mm thick surface underlayment, this avoids any chance of migration of the asphalt to the carpet.

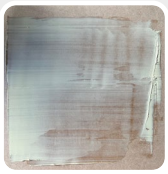
Temperature/humidity and conditioning

The ideal indoor temperature for installation is between 18-35°C, with a maximum air relative humidity of 65%. The subfloor temperature should not fall below 10°C and it is important that the carpet and underlay are stored on site at the same temperature as the areas to be installed.

Always install the carpet in accordance with the carpet manufacturer's instructions. These instructions are not exhaustive, if in any doubt please contact us.

Installation

1. Ensure that the subfloor is sound, smooth, dry, and level in accordance with **BS5325:2021**
   - Preparation of the subfloor is essential when using the double stick method. Timber substrates may require a fabricated underlayment such as flooring grade plywood with a minimum thickness of 5.5mm, whereas solid substrates may require an appropriate smoothing compound, as well as specific moisture suppressants if excessive moisture is present.
   - Check each roll of underlay for faults or discrepancies prior to installation.
   - Plan the direction of underlay runs, ensuring that the underlay runs at 90 degrees to the length of the carpet, and that joins do not coincide with carpet seams.
2. - Once appropriately prepared, clean the subfloor and remove any debris and/or contaminants which may impair adhesion of the underlay.
   - Lay out the underlay, ensuring each run is reversed, and leave approximately 50mm excess up the walls.
   - Pull back the underlay in manageable sections and apply an appropriate adhesive (Consult adhesive manufacturers for recommendations and installation guidelines.).
   - Once the adhesive has been applied, place the underlay back into position, ensuring that joins are butted tight, then apply **Wilsons Bonding Tape** along the joins. This will ensure no permanent adhesive penetrates through to the subfloor.
   - The use of a carpet glider can be used to aid in adhesive transfer and remove any entrapped air.
3. - If Gripper is being used, trim the underlay nett with the back edge, ensuring there are no gaps, and apply the appropriate tape as before to cover where the two products meet.
   - Alternatively, if no Gripper is being used, trim the underlay, leaving a gap of approximately 8-10mm, or 2/3rds thickness of the carpet. The use of an appropriate adhesive may be required to secure the carpet into the gully once trimmed.
4. - Once the underlay has been installed, remove waste and clean the surface using a vacuum cleaner to remove any dust and debris which may adversely affect adhesion of the carpet.
   - Perform a secondary application of pressure with a carpet glider if necessary.
5. - Plan the carpet runs and mark out join positions.
   - Lay out the carpet and ensure that the pile direction and pattern alignments are correct where appropriate.
   - Pull back the carpet in manageable sections and apply an appropriate adhesive, ensuring that the applicator has the correct sized notch (Consult adhesive manufacturer for recommendations).
   - Lay the carpet into the adhesive, ensuring that the alignment is still correct, and apply pressure by using a carpet glider, firstly applying pressure across the width, then working along the length of the carpet to obtain sufficient adhesive transfer, and remove any entrapped air.
   - Carpet joins should be sealed with an appropriate seam sealer, or seaming cement (Consult carpet or adhesive manufacturers for recommendations).



0 hours curing time

1 to 2 hours curing time

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