



## STANDARDS & REGS

### Carpet Underlay Standards

The standard for carpet underlays in the UK and Europe is BS EN 14499: 2015 -Textile floor coverings – minimum requirements for carpet underlays. The standard covers fibrous, non-fibrous and combined underlays together with their classification into one of five categories of intended use/application.

The key requirements are as follows:

Property	BS EN 14499: 2015	Test Method BS EN 14499: 2015
Breaking strength	>= 30N in each direction	EN ISO 13934-1 <sup>A</sup>
Elongation	</= 15% for applied force of 30N	EN ISO 13934-1
Loss in thickness: Static loading: long term after 24 hrs recovery	Fibrous underlay </= 40% Non-fibrous underlay </= 15% Combined underlay </= 40%	ISO 3416
Static loading: Short term after 1 hr recovery	Fibrous underlay </= 40% Non-fibrous underlay </= 15% Combined underlay </= 40%	ISO 3415
Dynamic loading:	Fibrous underlay </= 40% Non-fibrous underlay </= 15% Combined underlay </= 20%	ISO 2094
Thickness	>= 4mm	ISO 1765 <sup>B</sup>
Thickness deviation: a/ mean from nominal	Fibrous or combined underlay </= 15% Non-fibrous underlay </= 12%	ISO 1765
b/ from max to min	Fibrous or combined underlay </= 4mm Non-fibrous underlay </= 3mm	ISO 1765
Resistance to breaking or cracking	No cracks longer than 50mm along the fold No cracks in backing material	Annex A
Compression after dynamic loading	2mm min, 8mm max	ISO 2094 <sup>C</sup> BS 4098
Work of compression after dynamic loading	Min 50 J/m <sup>2</sup> , max 200J/m <sup>2</sup>	ISO 2094 <sup>C</sup> BS 4098
Retention of original work of compression	>= 40%	ISO 2094 <sup>C</sup> BS 4098



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To classify the underlay the standard defines performance levels where the work of compression after dynamic loading is plotted against the compression after dynamic loading.

The designations are as follows:

Designation	Description	Compression	Work of compression
LD/U	Light domestic use, not suitable for stairs	4 - 8mm	50 – 75 J/m <sup>2</sup>
GD/U	General domestic use	4 - 8mm	75-125 J/m <sup>2</sup>
L/U	Luxury use, domestic locations where high energy absorption is desirable	4 - 8mm	125 – 200 J/m <sup>2</sup>
GC/U	General contract use, suitable for normal foot and wheel traffic	2 - 4mm	50 – 75 J/m <sup>2</sup>
HC/U	Heavy contract use, suitable for heavy foot and wheel traffic and castor chairs*	2 - 4mm	75 – 200 J/m <sup>2</sup>

*\*There are many different types of castor wheels that are generally categorised into Types H, W, C and U in accordance with EN 12529:1999. Only Type H castor wheels are deemed suitable for chairs on carpeted floors. Any carpet to be used under castor chairs should also pass BS EN 985: 2001.*

*As a result of these additional factors, Footfall’s general advice wherever castor chairs are to be used is that the floor should be protected by either castor mats or other suitable protection.*



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