



# Carpet Fibres

## Is it a good idea to purchase Carpet based only on Fibre Type?

### SUMMARY:

A carpet (in roll, tile or plank form) is produced by the insertion of fibre or yarns composed of fibres/filaments, into a backing.

The use surface of the carpet is referred to as the pile and it may be cut or loop or a mixture of both. Numerous methods of manufacturing exist to achieve the desired pile style.

Carpets offer great value, aesthetic beauty, comfort and warmth, insulation and sound absorption and, are made to a predetermined specification based on the intended end-use in residential or commercial installations.

However, it is unwise to only base a decision to purchase on fibre type alone and the Carpet Institute of Australia (CIAL) recommends viewing the Australian Carpet Classification Scheme (ACCS) grading labels on the back of the colour swatch samples, to establish the performance level or grading required and then let personal preferences determine the selection of fibre type, colour, texture, handle and style.

### What are the Fibre Type Choices?

Quality carpets are made from quality materials and components by the manufacturer using their machinery, knowledge and established techniques to produce a well-constructed carpet to meet a particular set of installation durability and appearance retention overall performance requirements. Examples of specific requirements are: wheeled traffic, steps or stairs, people traffic, (number of people and trafficking patterns, walking safety), open plan layouts, acoustic and thermal comfort and, environmental safety.

Both natural fibres and synthetic fibres or filaments can be used to form the pile of a carpet. Some examples are: Natural Fibres: Wool – other natural fibres that are more often made into area rugs, include coir, sisal, seagrass, jute, cotton, silk, bamboo and mohair; Synthetic Fibres: Nylon, Polypropylene, Triexta and Polyester.

There are also carpets with pile made from a blending of the fibres. While the 80% Wool/20% Nylon blend is well known, other majority wool percentage blend examples are Wool/Bamboo, Wool/Polyester and Wool/Polyester/Polypropylene.

### Do the individual fibres have properties or characteristics that automatically mean the carpet will have satisfactory performance?

With the electronic resources readily available to everyone, it is easy to view information about individual fibre properties and their characteristics as well as comparisons of fibre to fibre.



While this may be useful information as part of the purchase decision, the answer to the question is 'NO' as fibre properties need to be converted to the carpet chain of properties in constructions that will perform on-floor in order to result in consumer product performance satisfaction.

This converting operation is carried out by the carpet manufacturer as the yarn construction (the appropriate yarn diameter, fibre/filament mass and twist level suited to the machinery that will produce the carpet) needs to achieve carpet surface pile mass and pile thickness product construction specifications to meet overall product performance criteria and achieve an ideal chain of properties.

The ideal carpet has certain attributes considered to be essential for performance, aesthetics and ease of maintenance to provide the best overall value for money and carpet performance.

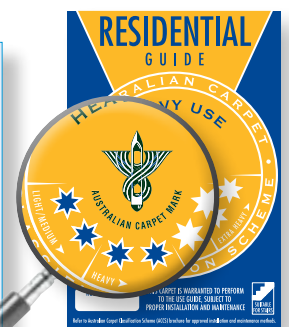
In addition to considering the properties required and in order to provide further assistance prior to a final purchasing decision being made, carpet performance grading schemes have been designed to take a lot of the guesswork out of the selection process.

The **Australian Carpet Classification Scheme (ACCS)** has been designed specifically for this purpose. Each grading category has established proven performance standards and any product submitted must achieve compliance with the criteria. These standards are continually reviewed to take into consideration new processing and machinery technology and research findings.

### What are the ACCS Classification Categories?

**The residential labels feature a six star system** – the more stars the better the durability and appearance retention properties of the graded carpet. 'Suitable for Use on Stairs' is indicated by a Stair Icon and for residential categories, the carpet construction must achieve a minimum of Residential Heavy Duty/ R3\* and meet other technical criteria before it can be considered for possible approval to use the 'suitable for stairs' icon.

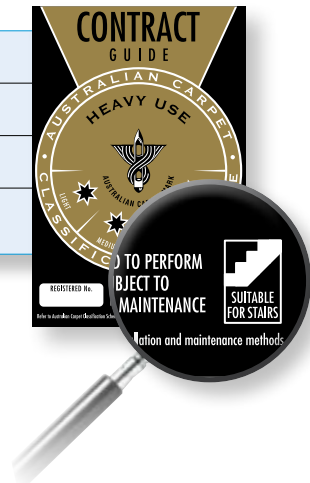
<b>1 star</b>	R1* – Residential Light Duty
<b>2 star</b>	R2* – Residential Medium Duty
<b>3 star</b>	R3* – Residential Heavy Duty (lower to mid range)
<b>4 star</b>	R4* – Residential Heavy Duty (mid to higher range)
<b>5 star</b>	R5* – Residential Extra Heavy Duty (lower to mid range)
<b>6 star</b>	R6* – Residential Extra Heavy Duty (mid to higher range)





**The contract/commercial labels operate a four star rating system.** ‘Suitable for Use on Stairs’ is indicated by a Stair Icon and for contract categories, the carpet construction must achieve a minimum of Residential Heavy Duty/ R3\* – Contract Light Duty/ C1\* and meet other technical criteria before it can be considered for possible approval to use the ‘suitable for stairs’ icon.

<b>1 star</b>	C1* – Contract Light Duty
<b>2 star</b>	C2* – Contract Medium Duty
<b>3 star</b>	C3* – Contract Heavy Duty
<b>4 star</b>	C4* – Contract Extra Heavy Duty



**How do these classifications translate into Location Guidance?**

The translation is as shown in the following table.

Location guide	RLD R1*	RMD R2*	RHD1 R3*	RHD2 R4*	REHD1 R5*	REHD2 R6*
Bedroom with light traffic flow	✓	✓	✓	✓	✓	✓
Living room, entertainment area with light to medium traffic flow		✓	✓	✓	✓	✓
Hallway, entertainment area with heavy traffic flow			✓	✓	✓	✓
Hallway, entertainment area with heavy traffic flow				✓	✓	✓
All surface areas with extra heavy traffic flow					✓	✓
All surface areas with extra heavy traffic flow						✓



### What does the CIAL recommend?

As it is unwise to only base a decision to purchase on fibre type alone, CIAL recommends viewing the ACCS grading labels on the back of the colour swatch samples in conjunction with the information in this document, to establish the performance level or grading required and then let personal preferences determine the selection of fibre type, colour, texture, handle and style.

Should part of the purchase decision involve environmental considerations, the Environmental Certification Scheme (ECS) is an environmental labelling scheme for carpets. It is an extension of the internationally recognized ACCS. Certified products must comply with a range of performance criteria and have a current ACCS grading.



### Disclaimer

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### About the Carpet Institute of Australia

The Carpet Institute of Australia Limited (CIAL) is the lead industry association for Australia's \$1.6 billion carpet industry. CIAL represents carpet manufacturers, carpet retailers and other suppliers of goods and services to the industry.

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