CS rugs.

Usage of a rug on underfloor heating.

In general
In addition to the cosmetic aspect, a rug is cosy, comfortable and warm. Besides this, it provides good acoustics. Many rugs are suitable in combination with underfloor heating. Because a home with underfloor heating is kept at the right temperature through the floor, the rug must transmit the heat optimally. Only then can you fully enjoy your underfloor heating.

What should I pay attention to?
- Heat resistance of the rug.The heat transfer resistance (Rc value) indicates the extent to which the rug transmits the heat from your underfloor heating system. The Rc value is indicated in m². K/W.
- The Rc value and the capacity of the underfloor heating system must be matched. Ask the heating installer for the desired maximum resistance value of the system.
- Most types of rugs are perfectly suitable for use in combination with underfloor heating. It is important that the rug is antistatic.

What is important?
- Is the underfloor heating the main heating in the room or only additional heating?
- Are there any complementary radiators?
- The pump/electricity of your underfloor heating; what is the Kw? (a small or larger pump will affect the capacity) .
- How big is the room that needs to be heated and how big is the rug? (this also affects the residual heat in the room)

Noot
Research shows that the insulation value of a rug can be up to 10 times higher than that of hard floor covering. The reason for this is that rug fibers are natural insulators, with low thermal conductivity. In addition, the surface pile, with its millions of tiny fibers, traps air and increases thermal insulation. The larger the area covered with rug, the more insulation can be provided.

Thermal resistance of materials

Material	Thermal insulation * R-value (m2K/W)
Concrete (10 cm) Multiplex (1 cm)	0,07 0,08
CSrugs carpet (gem. 2 cm) Fiberglass insulation (1 cm)	0,15 (average) 0,22

* The R-value is used to measure a material's resistance to heat transfer or thermal resistance: the higher the R-value, the greater the insulating effect.

Rugs with a high pile (45-60 mm) and a high pile weight
High-pile rugs not only create a cozy atmosphere, they are also ideal for retaining heat. Because in general, the thicker the rug, the greater the thermal insulation value (R-value). **Research shows that you can save up to 12% on energy with a rug.** By laying it over an underlay, the thermal insulation obtained is further improved.

Saving energy by installing a rug in a one-room apartment:

Carpet	Pole height (mm)	Carpet thickness (mm)	Total weight (kg/m²)	Energy saving heating %	Energy saving cooling %
Cut pile Cut pile	16 - 30 45 - 60	9,2 11,7	1.963 2.257	11,3 12,8	10,4 11,7

CSrugs has numerous beautiful, thick shaggy rugs in its collection range that meet these standards and therefore also have a high insulation value.

CSrugs

Bonksel 1
5721 TP Asten
The Netherlands

+31 (0)493 696 723
info@csrugs.com
www.csrugs.com

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