# design5mm

## Design5mm compression moulding felt

The raw material is needled felt that is produced by carding, wadding and fixing of the fibermaterial.

The needled felt that is used for manufacturing of compression moulding consists of a carefully composed mixture of polyester and meltfibers. When the textiles is hot, it is pressed and stabilized. The production process is very flexibel and makes it possible to produce several products with any form, colour and surface.

#### Properties of moulded felt

When the material is used in furnitures and furnishings it has the following advantages:

- *Noise reduction*. Pressed moulded felt absorbing echo and affect the noice level in a room.
- Absorbing the light. The moulded felts surface does not reflects the light the same way as plastic or metal.
- *Flexibility*. The moulded felt is stable cross. Where other materials bursts on load the moulded felt will spring back.
- Environmental thinking. Fibermaterial is gentle to the environment throughout its lifetime. Design5mms felt contains no chemical binders that can cause problems for example burning or recycling.
- *Fire resistance*. The moulding felt burn and extinguishes itself, the materiel melts gradually at temperatures around 110 degrees. Fire characteristics are good and meet, for example the vehicle industry's requirements for burn time.
- *Resistance*. The moulding felt is water resistance and does not change shape when exposed to moisture. Polyester is decomposed of strong basic solutions as for example soda or lye.
- *Hygiene*. The felt is easy to clean, either by vaccum clean the surface or by washing with soap and water.
- *Combinations*. Other materials for example woven fabrics, foam and foils, can be laminated and pressed together with our moulded felt.

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### Compression moulding felt

Testprotokoll brandprovning Enligt Volvo Corporate Standard STD 5031,1

Krav: Material utsätt för låga i 15 sekunder. Brinnhastigheten skall inte stiga över 80 mm/min

| Material: | VNF51072000063 | Formfilt |  |
|-----------|----------------|----------|--|
| Datum:    | 2007-12-17     |          |  |

Konditioneringsklimat:

50% (+-5) RH

L-riktning

|     | Vikt provkropp<br>(g) | Area prov-kropp<br>(m2) | Ytvikt prov-<br>kropp (g/m2) | Brinnlängd<br>(mm) | Brinntid (s) | Brinnhastighet<br>(mm/min) |
|-----|-----------------------|-------------------------|------------------------------|--------------------|--------------|----------------------------|
| 1   | 53,7                  | 0,0238                  | 2256                         | 0                  | 0            | #DIVISION/0!               |
| 2   | 50,09                 | 0,0238                  | 2105                         | 0                  | 0            | #DIVISION/0!               |
| 3   | 50,04                 | 0,0238                  | 2103                         | 0                  | 0            | #DIVISION/0!               |
| 4   |                       | 0,0238                  |                              |                    |              |                            |
| - 5 |                       | 0,0238                  |                              |                    |              |                            |
|     | Medelvärd.            | 0,0238                  | 2154,48                      |                    | 0,00         | #DIVISION/0!               |

X-riktning

|   | Vikt provkropp | Area prov-kropp | Ytvikt prov- | Brinnlängd | ц.<br>       | Brinnhastighet | 1  |
|---|----------------|-----------------|--------------|------------|--------------|----------------|----|
|   | (g)            | (m2)            | kropp (g/m2) | (mm)       | Brinntid (s) | (mm/min)       |    |
| 1 | 53,79          | 0,0238          | 2260         | 0          | 0            | #DIVISION/0!   | SE |
| 2 | 51,94          | 0,0238          | 2182         | 0          | 0            | #DIVISION/0!   | SE |
| 3 | 55,61          | 0,0238          | 2337         | 0          | . 0          | #DIVISION/0!   | SE |
| 4 |                | 0,0238          |              |            |              |                | 1  |
| 5 |                | 0,0238          |              |            |              |                | 1  |
|   | Medelvärd.     | 0,0238          | 2259,66      |            | 0,00         | #DIVISION/0!   | ]  |

Not. \*) SE= självslocknande

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