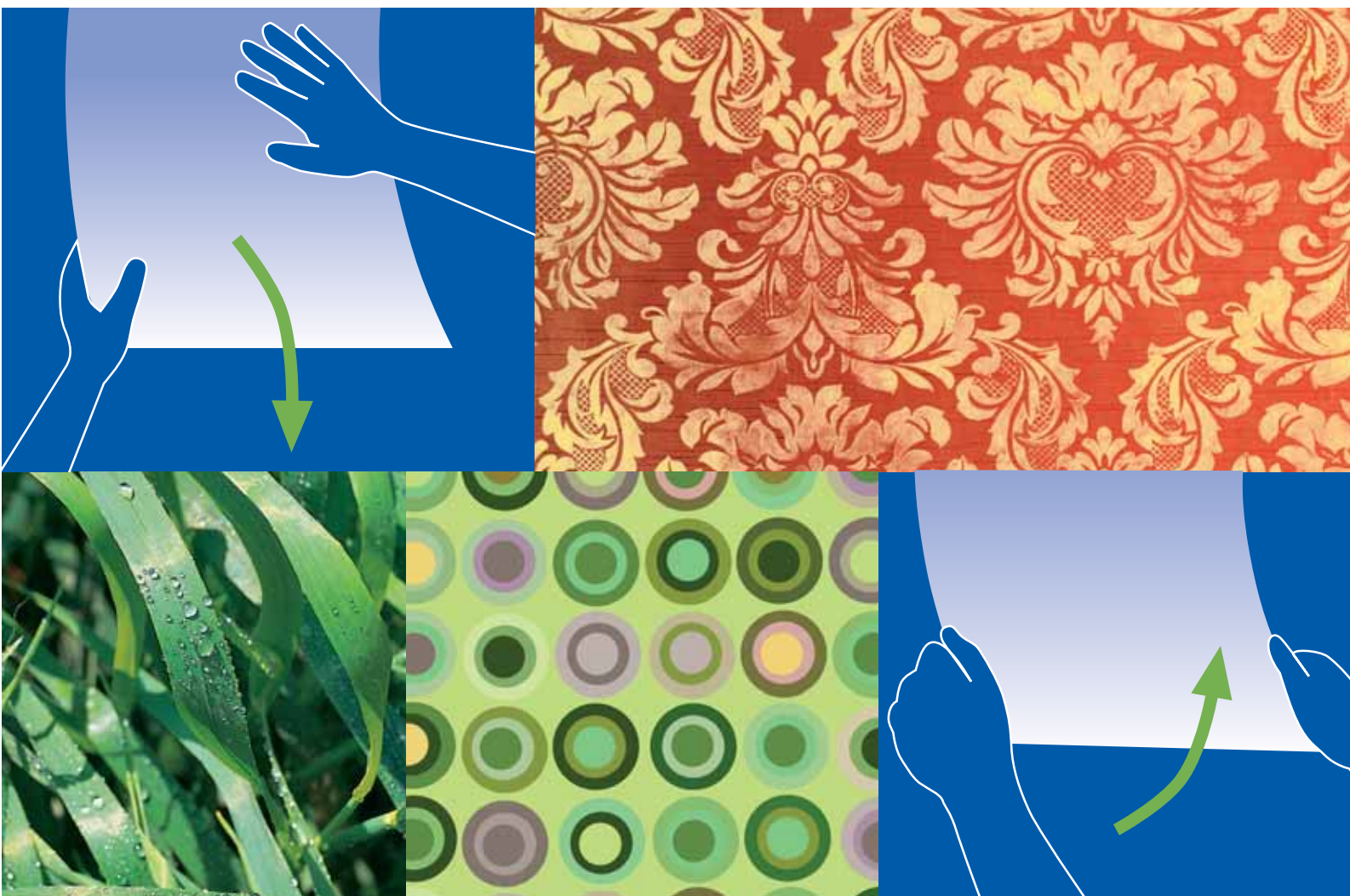




varitess[®]

Technical Information



nonwovens for wallcoverings

varitess[®] nonwovens for wallcoverings

varitess[®] are wetlaid nonwovens made from cellulose pulp and synthetic fibres.

They are produced on an inclined wire machine and reinforced with aqueous binder dispersions. In order to obtain special surface characteristics, the nonwovens can also be smoothed or coated.

We developed a vast product range for the different technologies in the wallcovering production.

Most of our products are available with FSC pulp.

PROPERTIES

varitess[®] is the ideal substrate for easy-to-use wallcoverings:

dimensionally stable

- paste the wallcovering
- paste the wall
- quick processing

high strength

- covers smaller cracks
- overlap and double cut
- dry strippable

additional properties

- high vapour permeability
- good light fastness
- glass fibre free
- high volume
- nonwoven character



DELIVERY PROGRAMME

varitess[®] is preferably supplied in reel widths compatible with our machine width of 2600 mm.

Common widths: 530 – 570 mm, 730 – 780 mm, 1000 – 1200 mm, 1400 – 1700 mm, other widths on request.

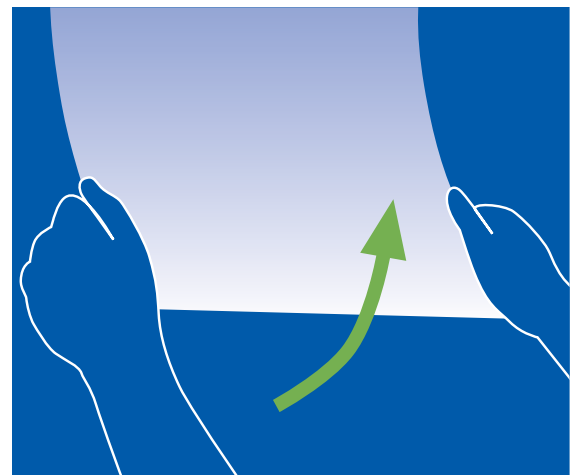
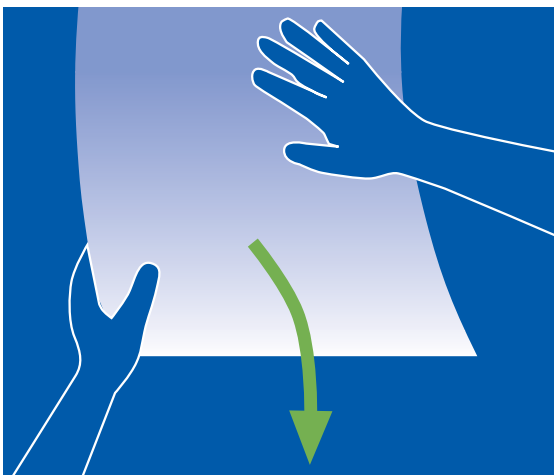
Exterior reel diameter: 600 – 1200 mm

Core diameter: 70, 76 or 150 mm

Colours

white

We are also able to produce **varitess**[®] in colours on request; colours must be matched individually.



PROCESSING

For the production of wallcoverings, **varitess[®]** can basically be converted in the same way as paper. Possible differences from standard paper include:

- some **varitess[®]** grades have a lower opacity.
- **varitess[®]** nonwovens contain synthetic fibres. Due to their composition and surface characteristics, these are less integrated, which may lead to fibre build-up during processing.

After coating, **varitess[®]** can be dried at temperatures up to 230 °C. Embossing patterns are easily applied onto the various qualities. Embossing stability is improved by applying heat onto the web, e.g. 100 to 150 °C.

FLAME RESISTANCE

In general, these tests are carried out by the wallcovering industry. The test is made on the finished wallcovering (e.g. coated or coloured, and glued to the wall).

varitess[®] 288.130 and **varitess[®]** 288.150 meet the requirements of flame resistant building materials in the category B1 according to DIN 4102-1 (test report No. 230005368, MPA NRW, 03/2006), so that both products are classified as building materials according to the building materials guideline A, part 2 (Bauregelliste A Teil 2; ABP Nr. P-MPA-E-06-507).

DRY STRIPPABILITY

The dry strippability of a wallcovering depends on wall surface condition, type and quantity of glue and type of wallcovering. **varitess®** is dry strippable under defined conditions. These conditions call for an undercoat treatment of the wall and e.g. „Metylan direct“ as glue. Method and properties are not yet standardized, therefore there is currently no certificate for the dry strippability of **varitess®**.

HEALTHY ROOM CLIMATE

varitess® nonwovens have a very open structure due to the use of synthetic fibres and thus have a high vapour permeability in contrast to paper - see also the report No. 1786/2002 of 01/2003 by the VDT (Association of the German Wallcovering Industry). This high vapour permeability prevents mildew and supports a healthy room climate.



SAFETY

The majority of the raw and auxiliary materials used in the production of **varitess®** is of natural origin. Additionally, synthetic materials are used to achieve certain product characteristics, e.g. strength.

For the production of **varitess®** no heavy metals or their compounds, organic solvents, mineral fibres or formaldehyde are used. In normal use no health risks as per §30 LFGB (German legislation on the handling of food, tobacco, cosmetics and other utility items) are to be expected.

varitess® nonwovens for wallcoverings correspond to the quality and testing regulations of the German Gütegemeinschaft Tapete e.V., quality label RAL-GZ 479 (version 10.2006). This is verified by random sampling on a regular basis.

DISPOSAL

varitess® nonwovens are free from substances which could cause harm to the environment or health.

When **varitess®** is incinerated under normal operating conditions, no combustion products or residues harmful to the environment are released. This is confirmed by an investigation by the German Institut für Energietechnik und Umweltschutz (institute for energy technology and environmental protection) of the TÜV Rheinland (11/1990).

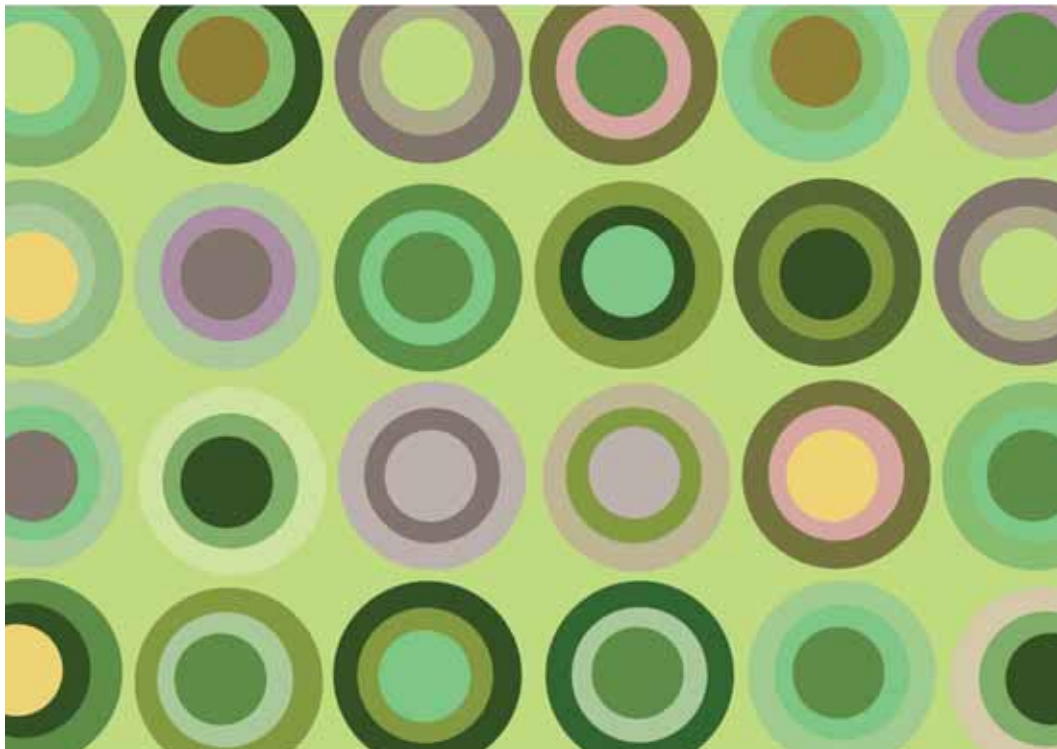
The investigation positively cites the high thermal value of **varitess®**.

SAFETY DATA SHEET

A safety data sheet is not available.

A safety data sheet according to the Regulation (EC) No 1907/2006 (REACH) or TRGS 220 is neither required by legislation (article 31, REACH regulation) nor applicable to this type of product.

We will gladly give further information on request.





Contact for more information:

Auf Brühl 15-27, 56112 Lahnstein · Germany · phone +49 (2621) 177 674 · fax +49 (2621) 177 49674
www.neenah-lahnstein.de · e-mail: info@tapetenvlies.de

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