

Recommendations

for the use of intumescent materials with adhesives

ROLFKUHNGBH

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Intumescent building materials with a one-sided adhesive allow a more rapid, clean and economic installation as compared to other fixing systems. Please read the following recommendations carefully and take advantage of this system.

Conditions of the surface

Surface must be dry and free from dust, oil, fat, oxides, release agents and other contaminations. Avoid moisture on the surface as caused by condensation on cold materials in warm surroundings. Best bonding results on closed surfaces, for harsh surfaces use a balancing adhesive.

Cleaning of the surface

For cleaning the surface use clean and lint-free one-way cloths only. When using solvents such as benzine, alcohol, ester or ketones make sure they do not leave residues on the surface or do not affect it. When using solvents, safety instructions of the manufacturer must be observed. Do not touch the surface. After cleaning allow some time for vaporisation of the solvents and then put elements together quickly in order to avoid new contamination (dust/finger prints).

Notice

During vaporisation, solvents tend to withdraw warmth from the surroundings so that the workpiece/material cools down. Thus, condensation might occur so that bonding should be started only after the material having regained surrounding temperature.

Mechanical cleaning of the surface

If solvents do not work, surface should be slightly grinded as for release agents, oxidised or powder coated surfaces. Clean surfaces after grinding. Check solvent tolerance of varnish and plastic.

Critical surfaces

Generally, all metal and high-energetic plastics (for instance ABS, polycarbonate, hard PVC, glass) bond easily. Critical surfaces are polyolefins, rubber, teflon, silicones and powder coated materials. Also materials containing plasticisers are critical as they may change properties of the glue. Thus, detailed tests for critical, uneven or structured surfaces are recommended.

Temperature

Best temperature for bonding is between 18 °C and 25 °C in dry rooms. Temperature of the material and the surroundings should be the same to avoid condensation. Avoid temperatures beneath 10 °C.

Notice

Low temperatures make glue too hard for bonding, high temperatures make it too soft.

Pressure

Adhesion of an adhesive is depending on the contact with the surface. Good surface contact is achieved by using a castor, coating knife or a squeezer. Hard adhesives require more pressure than soft ones. Pressure should be adjusted according to the material (thin or thick etc.) and to the geometry of the building component (20 N/cm² are considered sufficient).

Notice

Tools and hands must be free from release agents!

Final tack

Until full tack is reached allow 24 hours resting time. Pressure and warmth accelerate this process. Only then building components may be stored in the exterior, transported or strained.

Strain

For the construction, any disruption strain and shear tension should be avoided. Shear and tensile strains must be diverted throughout the whole area. Avoid buckling and tension on the ends of both parts to be bonded.

Notice

Continuous tension affects bonding. To avoid risk of damage, do not stretch the material and apply it without tension. Bonded parts should be strained after 24 hours only.

It is not advisable to bond parts across corners (neither inside nor outside).

Storage

Intumescent building materials with one-sided adhesives should be stored in their original package at temperatures between 18 °C and 25 °C and humidity between 50 and 70 %. Keep away from direct sun light. Under these conditions, the material can be stored for 6 to 12 months approximately.

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Contact surface

Make sure to apply the whole contact area of the adhesive on the surface. Intumescent strips or pre-cut parts should not be laid around or in corners.

Finish of intumescent building materials with one-sided adhesives

Avoid lifting of the liner and any contamination of the glue when cutting the material. Firstly cut the liner, then the glue and finally the building material. Check the accuracy of fit (0.5-1.0 mm slit on both sides) of the cut. Lift off a small part of the liner and adjust the intumescent building material exactly. Then tear off the liner slowly and press simultaneously. For optimum bonding use a pressure roll.

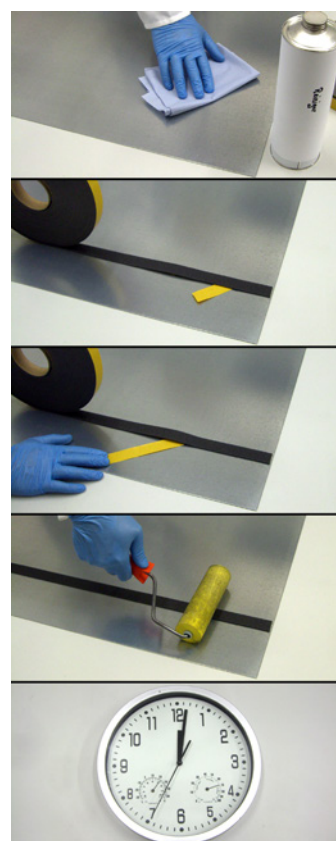
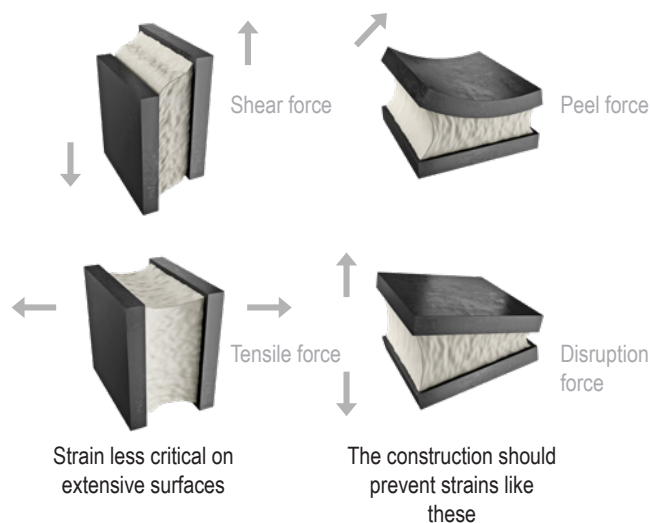
Notice

Avoid unnecessary strain (tension/buckling). To avoid risk of damage, do not stretch the material and apply it without tension. Best tack is achieved after 24 hours.

Drill holes have an impact on the elasticity of the building material and should be taken into consideration. Drill holes in the intumescent material should have a wider diameter than the drill hole itself. Thus, occurring disruption forces as caused by screw connections can be avoided.

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1. Clean/dry

2. Fit accurately

3. Application

4. Pressure

5. Await final tack

Note

The information in this brochure is based on our knowledge and experience to date. This information does not release the user from carrying out independent tests and trials due to the various influences when processing and applying our product. It is not possible to derive a guarantee of certain properties or suitability of the product in a concrete application case based on our information. All the descriptions, drawings, photographs, data, conditions, weights etc. included may change without previous announcement; they do not constitute the contractually agreed property of the product. The recipient of our product is responsible to observe any trademark rights and existing laws and regulations.