

# PUR 555.6 for a higher screw holding capacity



Torn out hinges and fittings when assembling or disassembling furniture is always an annoyance. Wooden products can now be strengthened by KLEIBERIT PUR 555.6 in furniture manufacturing so that a tripled screw holding capacity can be reached. In internal tests following the NWWDA TM-10 procedure, screws were applied to 555.6 treated light weight particle board. These were then loaded with up to half a ton of weight and maintained a secure hold in the board.

## Benefits of 555.6

- higher material stability => tripled screw holding capacity
- higher burn resistance in wooden materials
- reduced swelling, caused by humidity and water
- free of formaldehyde

## Forms of application

- single pack for the manual application
- hand injector for smaller lots
- air pressured gun injector for series
- application by automated machinery for inline processing

## ADHESIVES

It is now possible to achieve high screw holding capacities and securely positioned hinges and fittings in porous light weight boards with low gross density.



Cross section: KLEIBERIT 555.6 strengthened drill hole in mineral board. Clearly visible the inner thread created by the screw.

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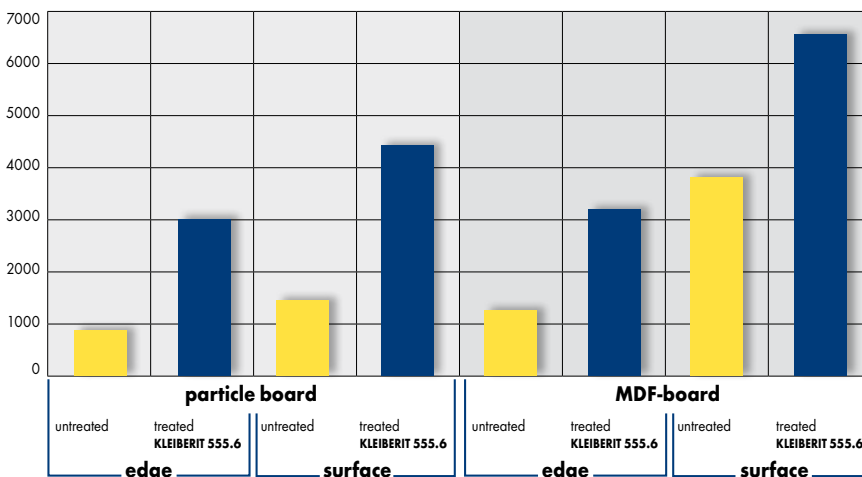
**The Product**

**KLEIBERIT PUR 555.6** is a 1-component reactive polyurethane densifying material which, by reacting with humidity, changes from a fluid to a hardened form. The strengthening is a direct result of the areas being treated with 555.6, filling the cavities and saturating the wooden particles. As the viscosity of 555.6 is close to the viscosity of water, it easily penetrates by capillary effect and gives strength by hardening. Thus a hard and solid area is created in which screws draw an inner thread when being inserted. This inner thread achieves a manifold screw withdrawal resistance when compared with untreated boards.

Due to this, the use of boards with a lower gross density is possible in production which normally would not be suitable for the screw holding requirements of doors and furniture. By treating partial areas of boards where a screw holding capacity is necessary and achieving the required values, a large cost-saving potential can be created by using cheaper board material. For larger series use an air pressured hand gun.

**Characteristics and application areas**

- use of cheaper board material with lower gross density possible
- strengthening of hinge recesses in furniture manufacturing
- strengthening of pre-drilled screw holes
- preparation of smooth particle board edges for direct varnishing
- higher water and humidity resistance



**Screw withdrawal value**  
(Screw 5,5 x 40)

Material	untreated	treated KLEIBERIT 555.6
regular particle board	170 kg / 383 lbs	449 kg / 1009 lbs
light weight particle board	154 kg / 346 lbs	442 kg / 995 lbs
mineral board	78 kg / 178 lbs	212 kg / 478 lbs