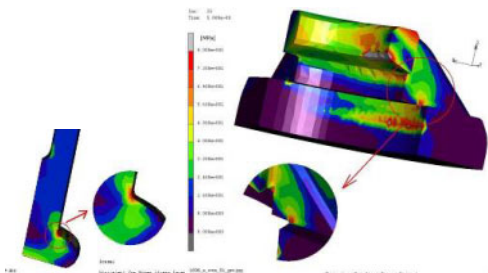


### Technical datasheet PERFIX®

Ref.: EN05TD01

Every component of PERFIX® is optimized by technical design and material through computer modeling and -simulation (by 'finite elements method') and practical tests.



Stress analysis through computer modeling

ASA (Luran S 797 S-UV)

glassfiber reinforced nylon UV (Bergamid)

Stainless Steel 316 (seawater-resistant)

ASA Luran S 797 S-UV

ASA Luran S 797 S-UV

glassfiber reinforced nylon UV (Bergamid)

Stainless Steel 316 (seawater-resistant)

glassfiber reinforced nylon UV (Bergamid)

glassfiber reinforced nylon UV (Bergamid)



### Long-term material behaviour strength, stress and UV-stability (source: Product brochure Luran® S)

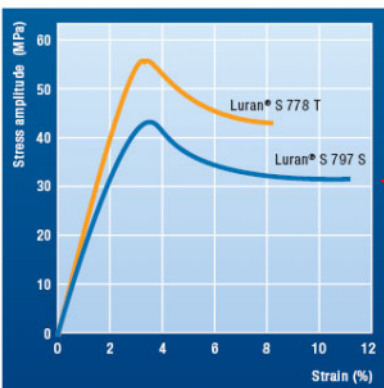


Fig. 1: Stress-strain curve for various Luran® S grades (ISO 527 tensile test at 23 °C)

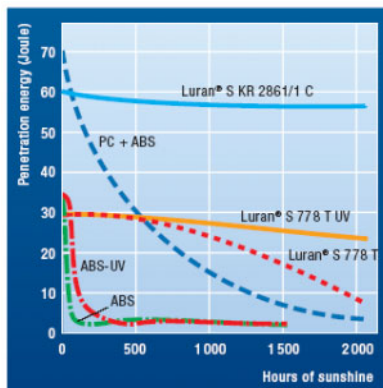


Fig. 9: Toughness in the ISO 6603-2 penetration test after outdoor weathering in Limburgerhof, Germany; penetration energy on 2 mm thick disks

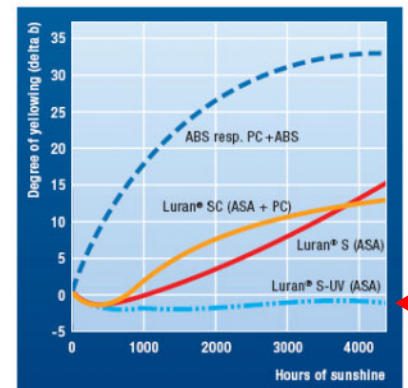
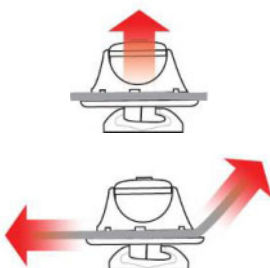


Fig. 10: Yellowing of ABS, Luran® S and blends on outdoor weathering (white pigmentation)

### Tests and Quality checks prove that PERFIX® can easily compete with competitive products.

#### Tests



Button releases from receiver at average 46 kg. without damage.

Button does not release from receiver at 50+ kg. No damage. (failure of cloth is at 45 kg.)

#### Quality checks



Every button is checked by computer on the welding process. A batch (1000 pcs.) is released OK when sample-tests result is no break at <24 kg.

Every receiver is checked by computer on the welding process. A batch (1000 pcs.) is released OK when sample-tests result is no break at 50 kg.