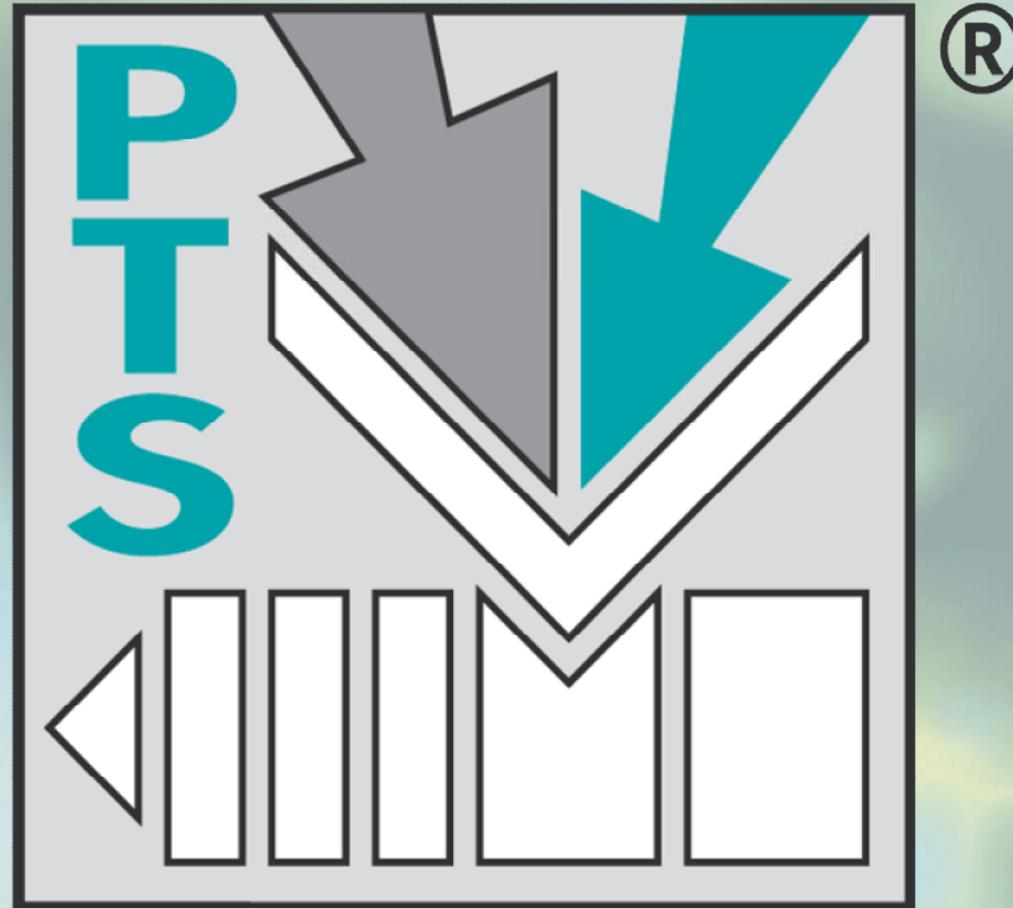
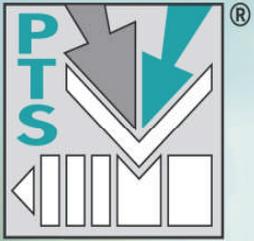
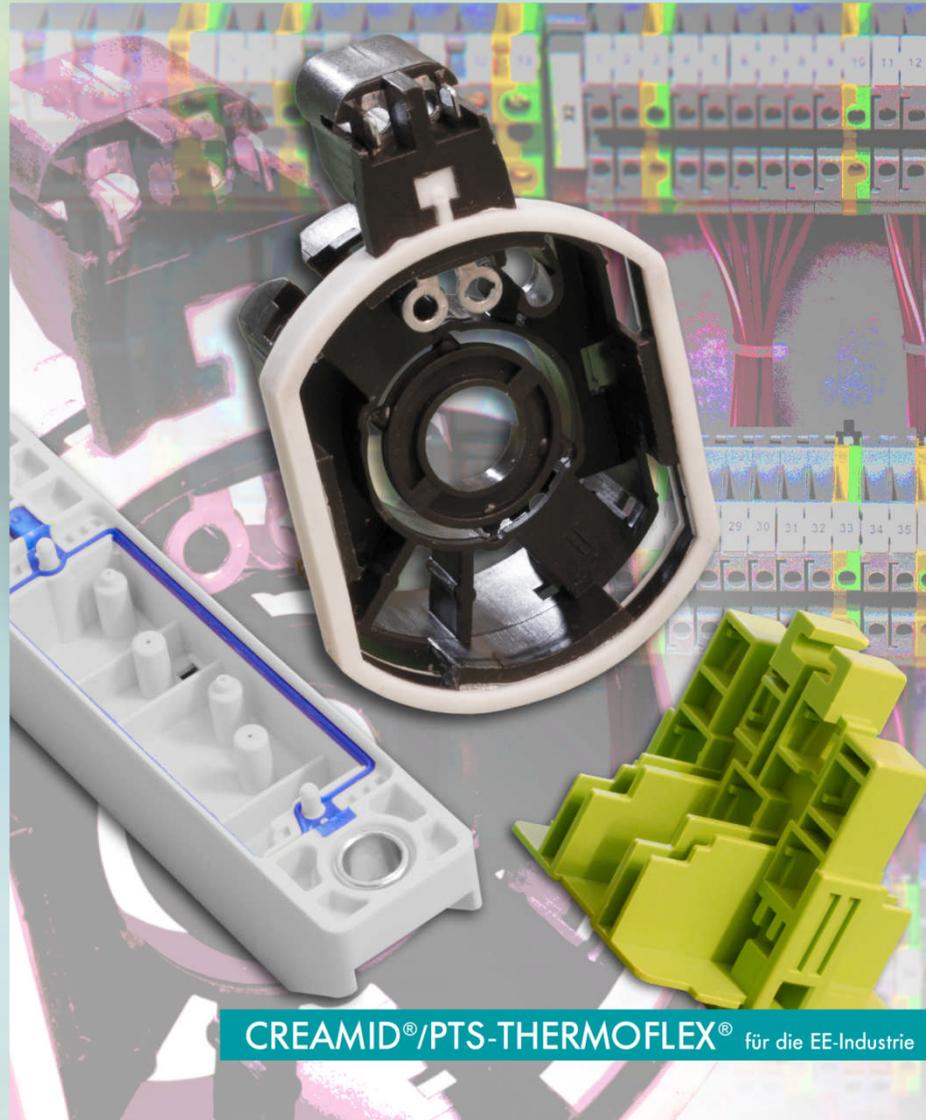


FAKUMA 2015

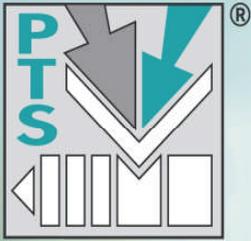




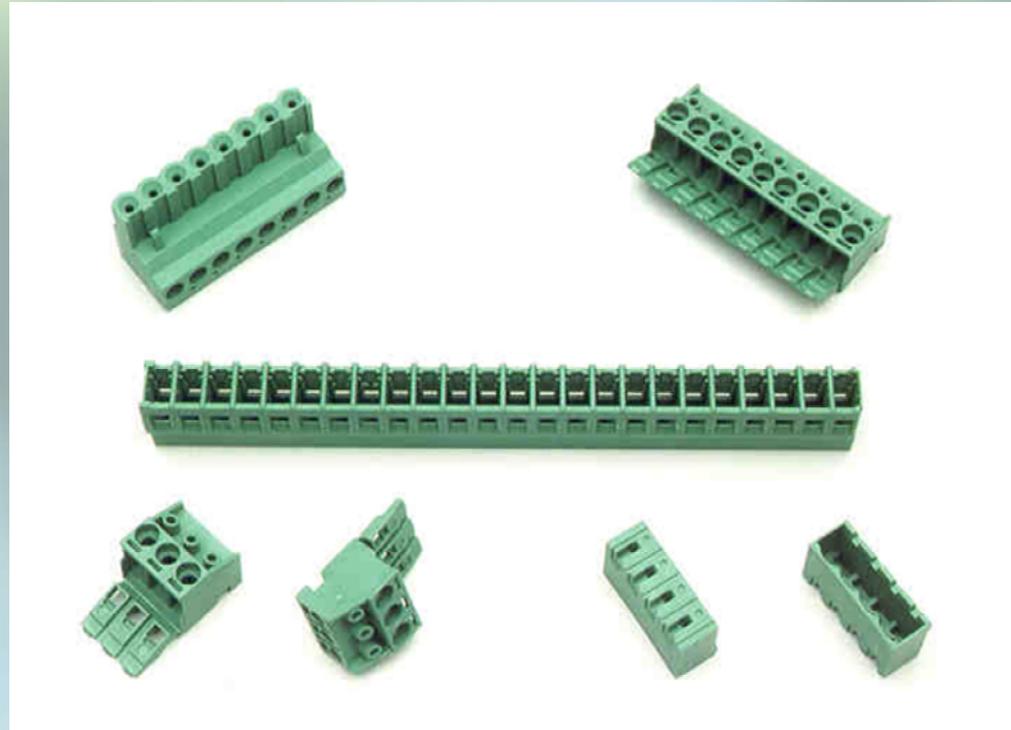
Electro / Elektronik



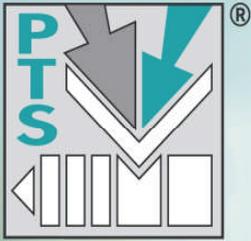
CREAMID®/PTS-THERMOFLEX® für die EE-Industrie



Electro / Elektronik



**CREAMID® PA66/6 UL94 V0/0,4mm
unreinforced, UL listed**

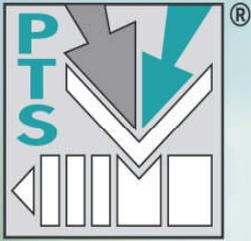


Electro / Elektronik



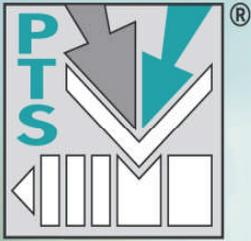
© PDM-DESIGN

CREAMID[®] PA66/6 GF20 UL94 V0/0,5mm
Semi-aromatic, ultraflow



Electro / Elektronik

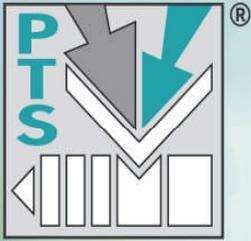
- ✓ **Low warpage**
- ✓ **Ultraflow-properties possible**
- ✓ **low impact of water absorption**
- ✓ **Outstanding surface**
- ✓ **Higher Tg (Glasstransition Temperature)**
- ✓ **Gentle processing of Flameretardant leads to lower blooming**



Electro / Elektronik

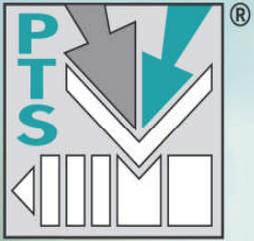


CREAMID® PA66 GF25/30
UL94 V0 down to 0,4mm, semi-aromatic

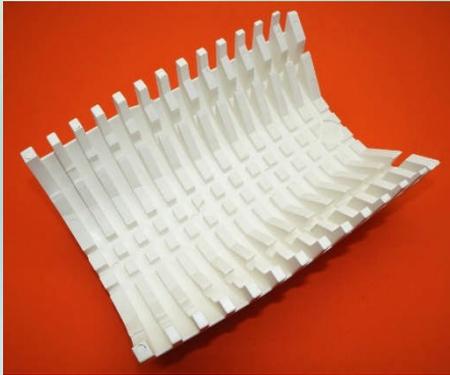


Electro / Elektronik

- ✓ **Low warpage**
- ✓ **low impact of water absorption**
- ✓ **Outstanding surface**
- ✓ **Higher HDT**
- ✓ **Thermostabile Flameretardant leads to low blooming**

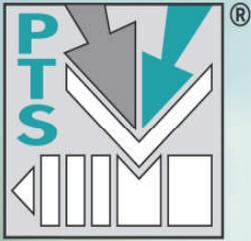


Electro / Elektronik



COOLPLAST®





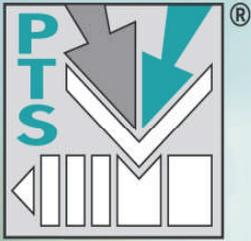
Electro / Elektronik

COOLPLAST®

Heat conductive Polyamide

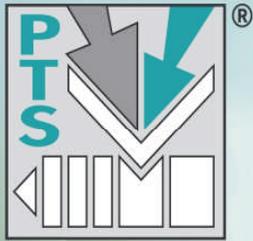
- ✓ Heat conductive PA (at 20°C = 1,45 W/m*K)
- ✓ ~ 5 to 6 times higher than not modified PA
- ✓ Electrically insulating
- ✓ High dimensional stability
- ✓ Low water absorption

- ✓ Typical Application are heat dissipating parts like:
 - plugs
 - sockets
 - Electro-engine parts
 - Housings with radiators (e.g. Transformers)



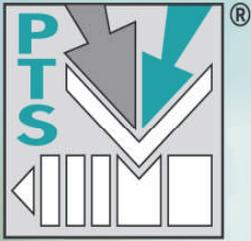
Reference list





Lightweight construction



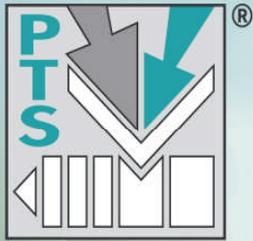


Lightweight construction

Concept density:

- Zotek N → PA-foam **density 0,03 g/cm³** 
- CREALEN → PP high modulus/impact
- CREAMID-S → MuCell (30% weight reduction)
- CREALEN → MuCell (40% weight reduction)
- UNIFLEX-S → MuCell (60% weight reduction)





Leichtbau



Concept density/Sandwich:

Core Layer:

Light foam,
density $< 0,5 \text{ g/cm}^3$



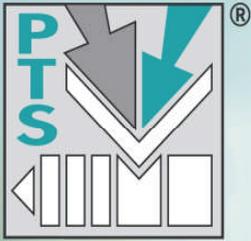
Skin Layer:

DURAMID[®]
(E-Modul 25.000 MPa)

**Density of complete
part:**

1,00 g/cm³

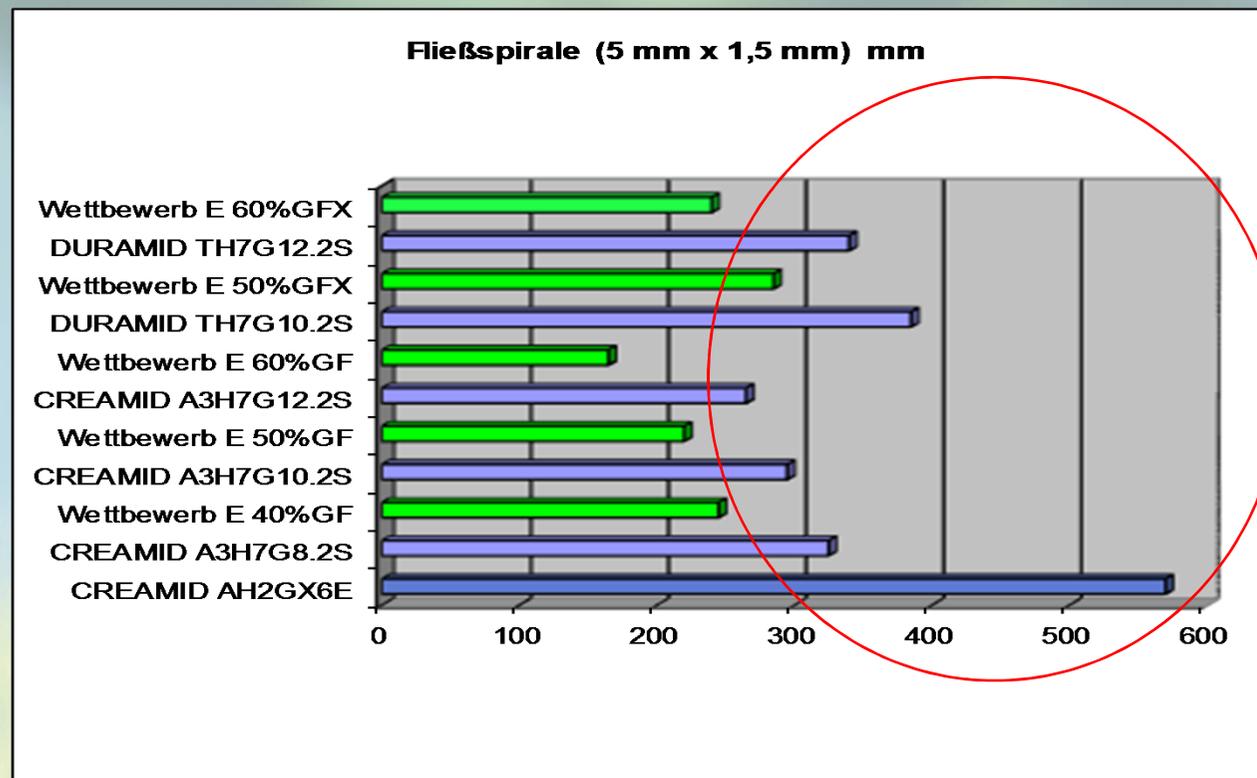
Gewichtersparnis bis 30%

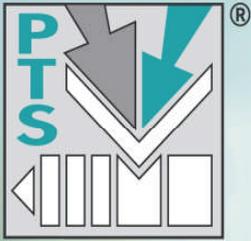


Lightweight construction

Concept Flowability:

PA66 GF ultraflow → up to 570mm flowpath possible





Lightweight construction

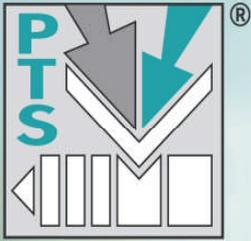
Concept Stiffness:

CREAMID-S → PA semi-aromatic

- E-modulus cond. up to 20.000 MPa
- Aestetical surface

DURAMID-S → PA semi-aromatic

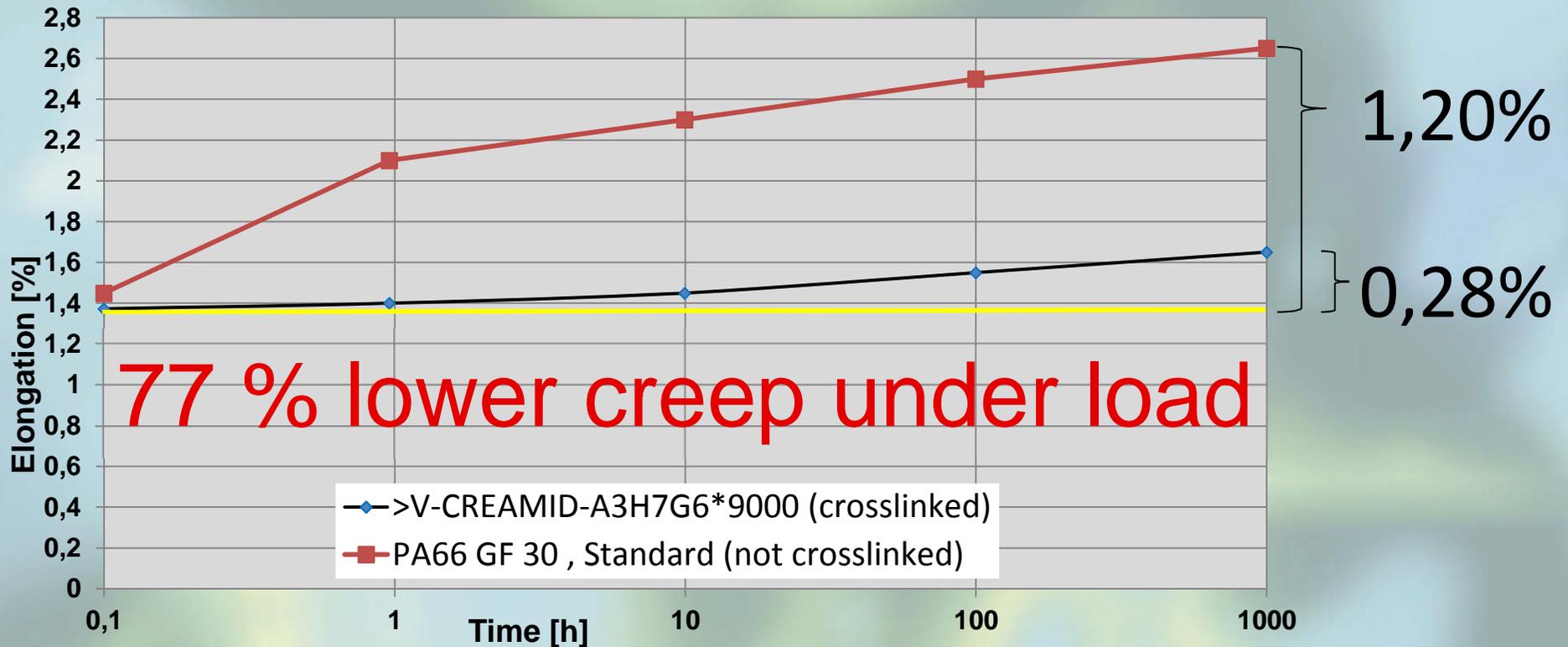
- E-modulus cond. up to 22.000 MPa
- Aestetical surface
- 30% higher mech. strength transverse to fiber

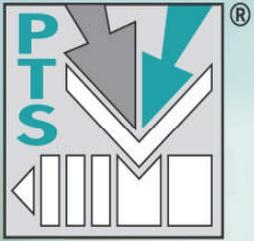


Lightweight construction

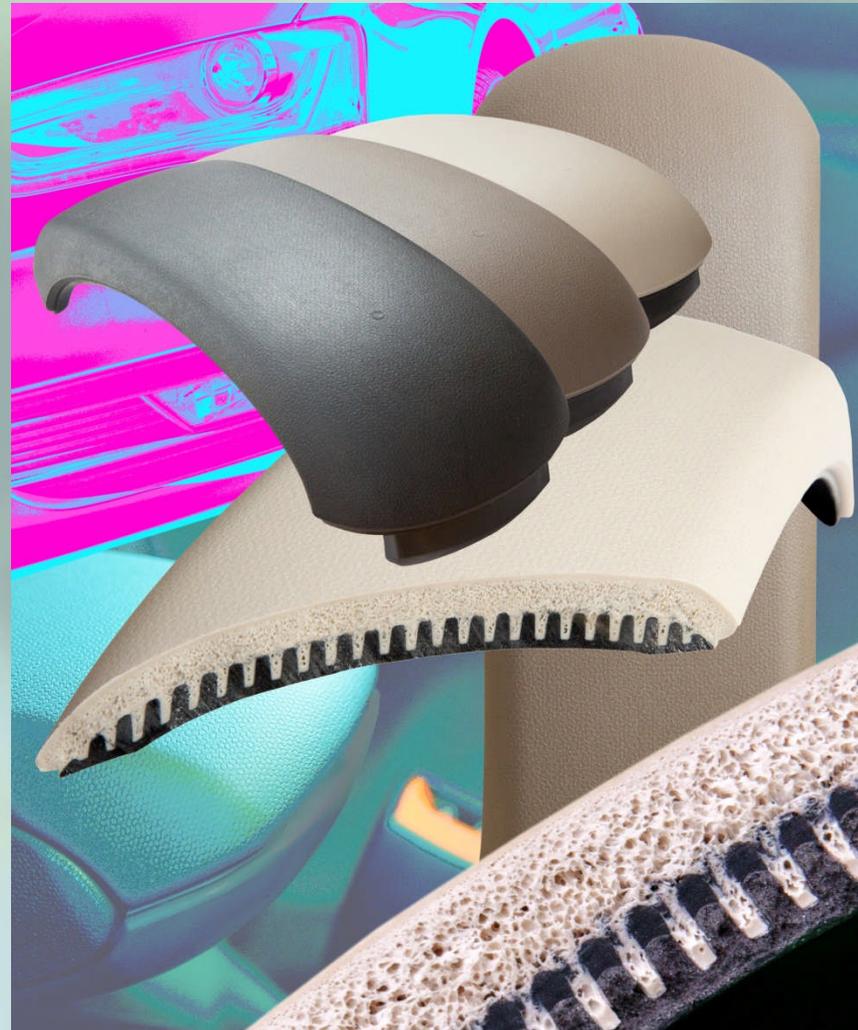
Concept crosslinking/creeping:

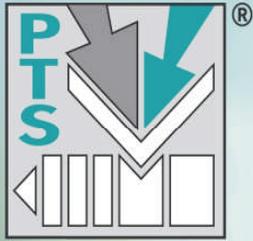
PA 66 30% Glasfiber
Crosslinked vs. Not crosslinked at 90°C / 50 MPa load





Haptic

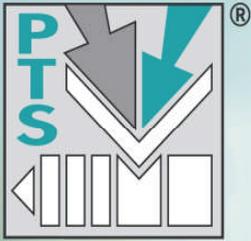




PTS Haptic-construction kit

PTS-UNIFLEX-S (Quattro Blend)

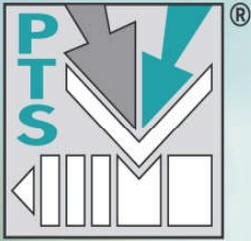
- ✓ High scratch resistance
- ✓ Bond to PP and PC/ABS
- ✓ Foamable
- ✓ Light resistant



PTS Haptic-construction kit

PTS-THERMOFLEX-O (TPO)

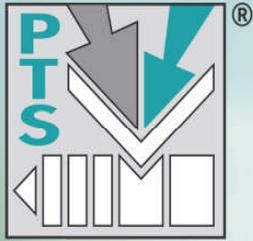
- ✓ Scratchresistant
- ✓ Bond to PP
- ✓ Light resistant
- ✓ Economic Alternative



PTS Haptic-construction kit

PTS-THERMOFLEX-B2 (TPS)

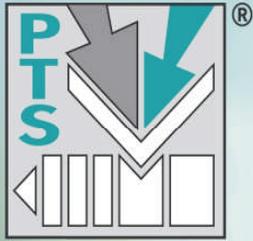
- ✓ Scratchresistant
- ✓ Bond to PP
- ✓ Light resistant
- ✓ Economic Alternative



PTS Haptic-construction kit

PTS-UNIFLEX-U (TPU GF verstärkt)

- ✓ High scratch resistance
- ✓ High impact
- ✓ High damping
- ✓ Soft-Touch
- ✓ E-modulus up to 6900 MPa



PTS Haptic-construction kit

COOLPLAST (TPS oder PA)

- ✓ Heat conductive
- ✓ Electrically insulating