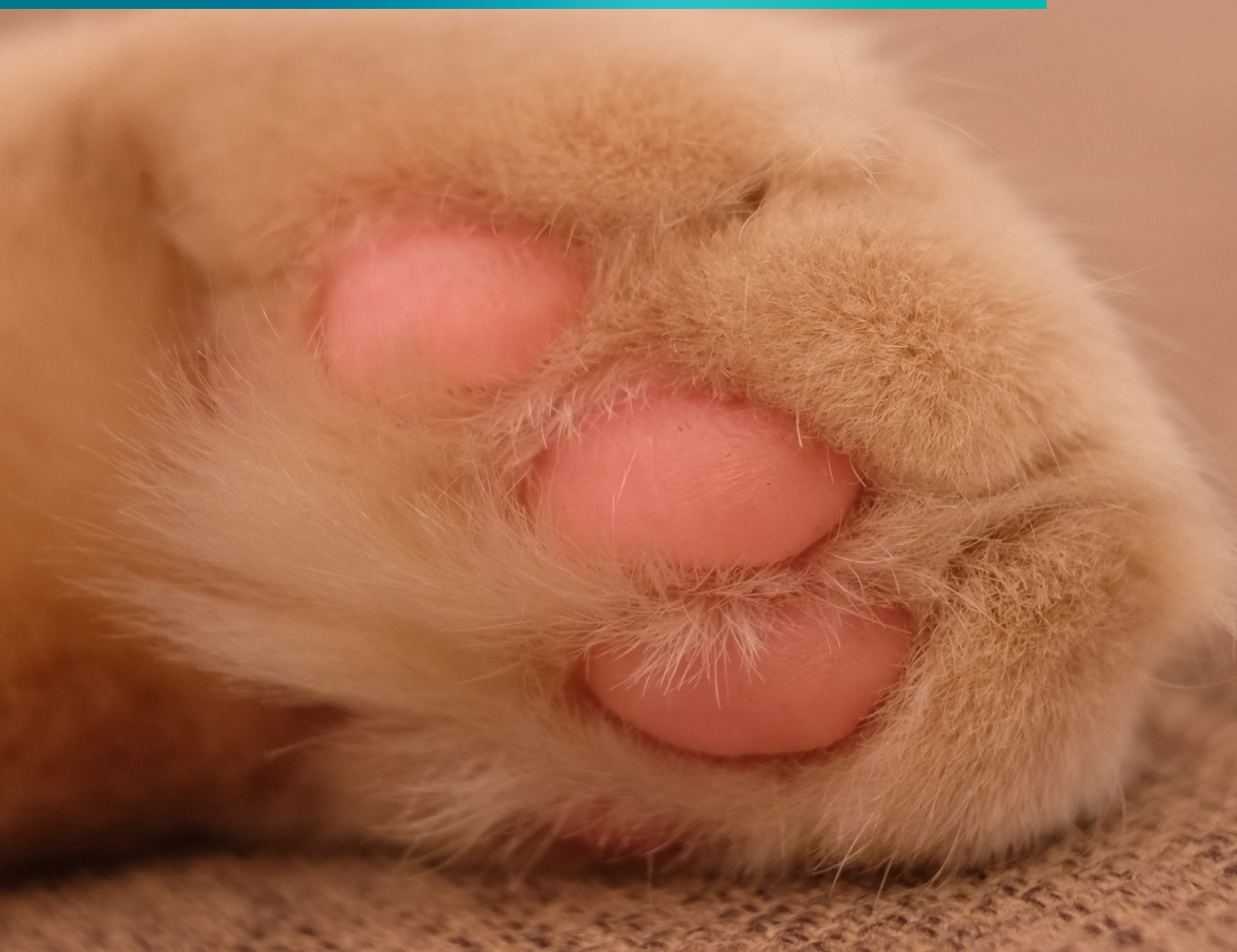


ANTISCRATCH &  
ABRASION RESISTANT



# MECHANICALLY STABLE LAYERS

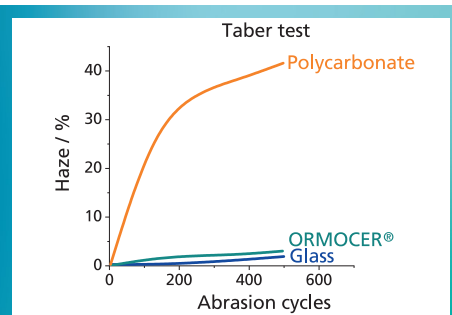
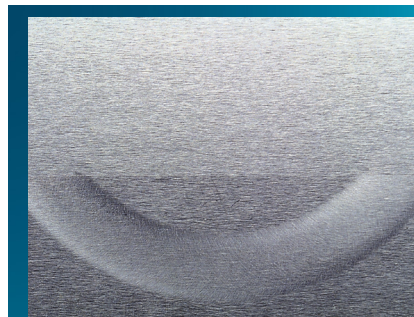
**HARD PROTECTIVE COATINGS** can help reduce abrasion and the occurrence of defects on various surfaces by mechanical impacts. ORMOCER®s designed as hard coatings help to protect the base materials and substrate. These hybrid materials can achieve a hardness similar to that of glass, in maintaining the optical properties of the substrate, due to a high transparency.

**WORKING PRINCIPLE** ORMOCER® form a very dense organic and inorganic network which guarantee a high durability. Adjusting the inorganic content the balancing act between hardness and flexibility, e.g. thermal expansion can be optimized. Also the integration of nanoparticles is possible. The curing can be done by UV or thermal treatment.

## APPLICATIONS

- Abrasion protection of polymers, e.g. accessoires, optical tools like lenses or glasses
- Protection of soft metals, e.g. decor aluminum

Also the complete characterization and testing can be performed in Fraunhofer ISC.



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