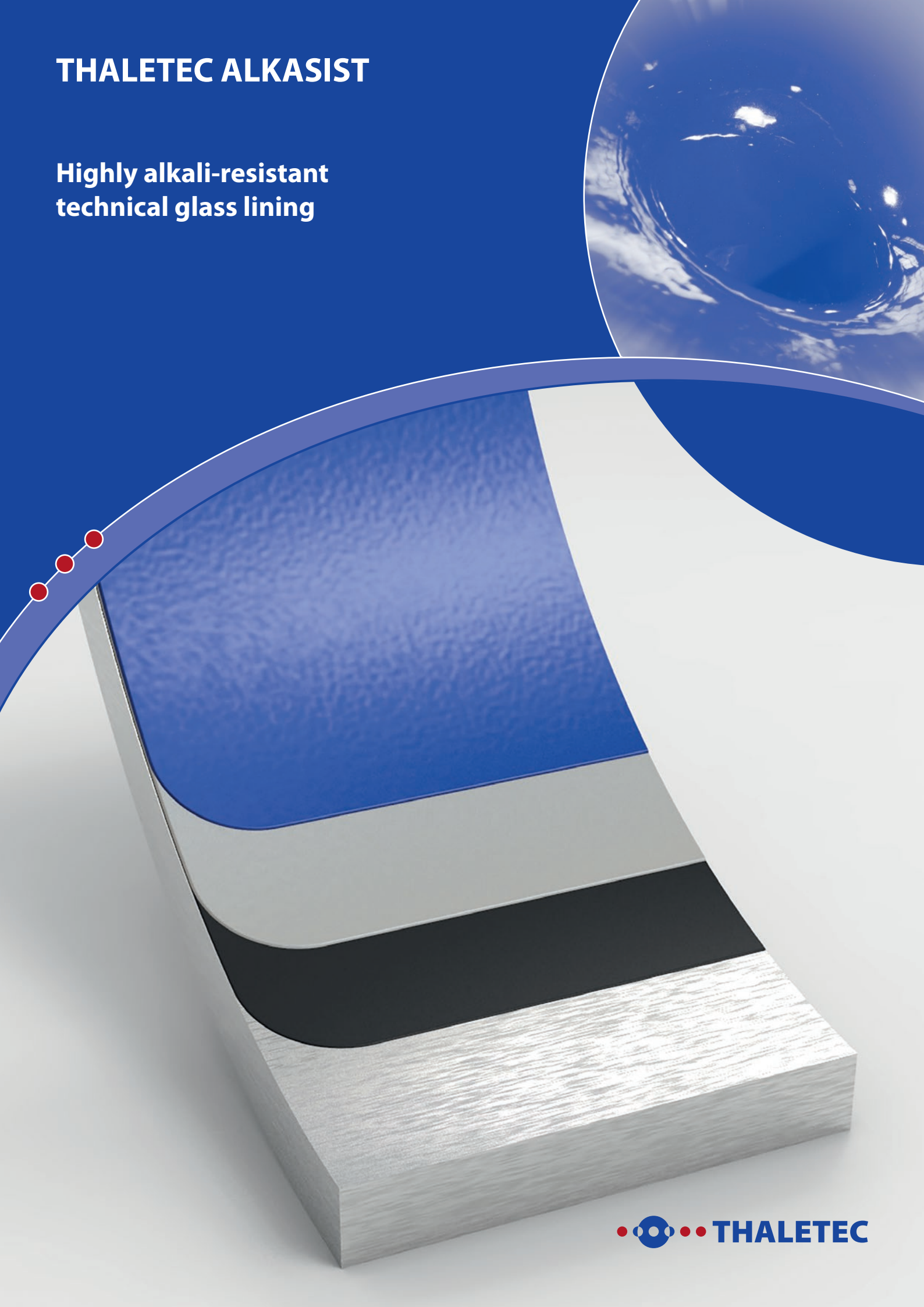
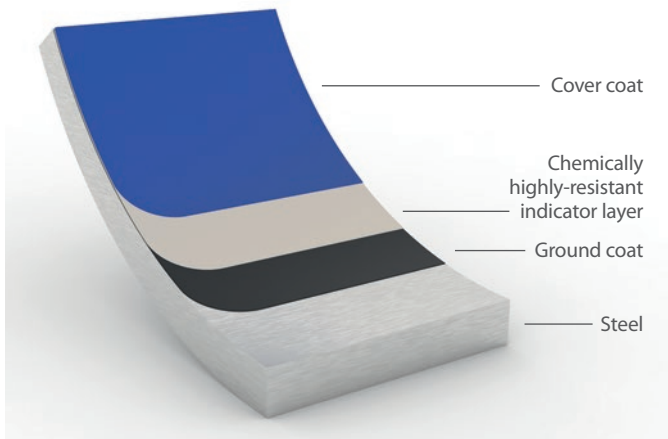


THALETEC ALKASIST

Highly alkali-resistant
technical glass lining







- ① 1: Layer structure of THALETEC ALKASIST with extremely alkali-resistant cover coat and chemically highly-resistant indicator layer for the early visual detection of glass lining removal. The glass-lining is per BS EN ISO 28721-1.



Description:

THALETEC ALKASIST is a **newly-developed** glass lining for processes **in which the pH value lies well above 7 for a prolonged period**.

While conventional technical glass linings have excellent chemical resistance in highly corrosive acid processes, these glass linings are less efficient under basic conditions. This is mainly due to the fundamental properties of technical glasses which include glass linings.

The resistance of technical glass linings is demonstrated by standardised test methods. These make it possible to objectively compare glass linings from different manufacturers. For proof of alkali resistance, BS EN ISO 28706-4:2016-01-31  applies.



The glass-lining quality fulfills the requirements as per BS EN ISO 28721-1:2011-04-30 .

According to this test method, THALETEC ALKASIST has a corrosion rate which is **up to 60% lower than the corrosion rate of a standard technical glass lining**. Yet THALETEC ALKASIST also has a corrosion resistance in the acid range (BS EN ISO 28706-2:2017-03-31 ) which is within the permissible values according to BS EN ISO 28721-2:2016-01-31 .




To increase the operational safety of components glass lined with THALETEC ALKASIST and to detect critical glass lining removal early, THALETEC ALKASIST is made in a multilayer process with an **embedded, chemically highly-resistant indicator layer**. If glass lining is removed during use, the early reaching of end of life can be **easily** detected **visually**.

THALETEC GmbH

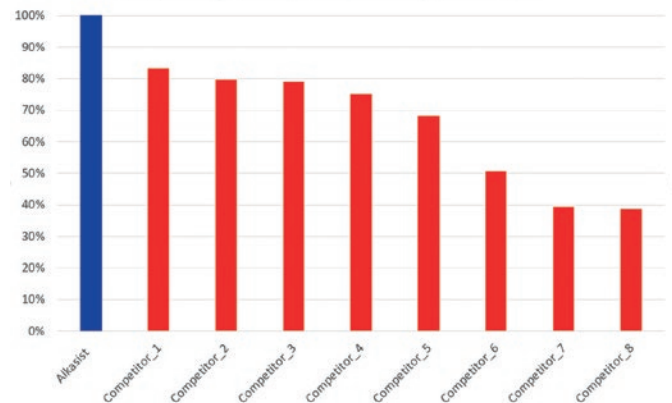
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Vergleich der Laugenbeständigkeit (ALKASIST = 100%)
Comparison of Alkaline Corrosion Resistance (ALKASIST = 100%)



- ① 2: Comparison of alkali resistance of THALETEC ALKASIST with glass linings of competitors (based on catalogue data, if available, known and comparable). THALETEC ALKASIST equals 100%

Characteristics:

- Corrosion resistance in the **acid range** according to BS EN ISO 28706-2:2017-03-31: 0.08 mm/a with tolerance values according to BS EN ISO 28721-2:2016-01-31. Hydrochloric acid test in accordance with BS EN ISO 28706-2:2017-03-31, duration: 48 hrs, test solution: 20% HCl, gas phase. Permissible value according to BS EN ISO 28721-2:2016-01-31: 0.08 mm/a
- Corrosion resistance in the **alkaline range** BS EN ISO 28706-4:2016-01-31 with tolerance values according to BS EN ISO 28721-2:2016-01-31: 0.15 mm/a; sodium hydroxide test in accordance with BS EN ISO 28706-4:2016-01-31, duration: 48 hrs, test solution: 1 M NaOH, test temperature: 80°C, liquid phase, volume/surface area ratio: 3.5/1. Permissible value according to BS EN ISO 28721-2:2016-01-31: 0.4 mm/a
- Glass lining in the THALETEC multilayer process with embedded, chemically highly resistant indicator layer for rapid recognition of the component or apparatus reaching the end of maximum life

Advantages:

- universally useable technical glass lining for acid and alkaline processes where the pH value is above pH 7 for a prolonged period
- strong chemical resistance even in the acid range, therefore universally useable in acid processes, too
- planable repair due to easy and early recognisability of the end of life of the glass lining and thus **preventive maintenance** to ensure the productivity of the plant