Property	PU	AC	Explanation
Viscosity	> 100 mPas	3...10 mPas	Values of typical products
Injection in voids filled with water	slight threat of mixing/dilution possibly threat to flow capacity due to foam formation	high threat of mixing/dilution no reaction with volume enlargement in liquid state	Proclivity for mixing grows as viscosity decreases (transition to turbulent flow) PU basic material (diisocyanate) reacts with water causing foam to form. The outcome: flow properties, mechanical properties and tightness deteriorate
Tightness	Proof possible up to 7 bar	up to 7 bar as well as after cyclic drying	Proof as crack filler according to [EN 1504-5] or permit
Expandability	> 10 %		standard proof as crack filling agent, individual products cope with larger elongations. AC is generally more ductile than PU
Swelling capacity	capacity practically non-existent	begrenzt quellfähig	Possibility of subsequent sealing if the rock is incompletely filled or movement of the rock in the case of swellable products
Compatibility with concrete	Storage in alkaline liquids, evaluation of mechanical properties		Proof that contact with concrete does not lead to adverse changes to the properties
Environmental compatibility [3]	no toxic effects on groundwater, proof in liquid, fully reacted and solid state		No release of hazardous materials

Table 1 Main properties of grouting agents (PU = Polyurethane Resins, AC = Acrylate Gels)