

Issues that can occur when painting Elastomeric Sealants

Fault	Visible result and effect	Cause	Products most frequently effected
VS* = paint flaw	The paint finish appears flawed, inconsistent and less than perfect	Incompatibility of systems, meaning the wetting and adhesion of the coating on the sealant is flawed	Can occur with all sealing materials and coating systems, but especially silicone sealants
KL* = no drying, sticky surface	Coating is both visually and mechanically flawed, high fouling risk	Incompatibility of products, mostly due to plasticizer migration	Can occur with all sealing materials and coating systems, especially in hybrid polymers, polyurethane and polysulphide sealants
KH = no adhesion of the cured coating to the substrate in the adjacent area. Cross- cut test according to DIN 53151	Visibly poor coating, wetting and adhesion of the coating on the substrate is partially disturbed. Results in limited function of the coating	Contamination of adjacent joint areas with sealant components, e.g. smoothing too much wetting agent on an area or distributing the sealant into the joint border areas with smoothing spatula	More common with silicone sealants
RU* = Wrinkles in the coating	Coating both visually and mechanically flawed	Incompatibility of the products, compression of the sealant with excessive demands on the movement accommodation of the coating	Can occur with all sealing materials and coating systems
VF* = Colour change	Optical flaw in the coating	Chemical reaction as a result of the incompatibility of the products	Can occur with all sealing materials and coating systems, e.g. due to plasticizer migration

Fault	Visible result and effect	Cause	Products most frequently effected
RB* = Cracks in the coating	Coating visually and mechanically flawed EG *Hairline cracks in the coating during the drying phase particularly for highly filled systems *Toe-cracking of the coating with subsequent sealant damage (possible cohesion cracks) and optical flaws (surface stains)	The coating is less deformable (shapeable/moldable than the sealant)	Can occur with all sealing materials and coating systems, if movement accommodating sealants are painted
Coating on the sealant surface is optically different , e.g. a little darker (marking)	Optical flaw of the coating on the sealant and the adjacent component surfaces	Different application thicknesses (opacity) of the coating on the sealant surface and the adjacent surfaces results in tonal, colour differences	Mainly in connection with acrylic sealants, used for filling plaster cracks and - holes, connections to wallpapers, drywalls and other interior applications

*= the abbreviations are taken from DIN 52452-4

Most common complaint? The cracking of the paint system, which is usually caused by thermally induced changes in length or settling of components, e.g. in exterior wall joints, or joints between windows and doors and other components.

The extent of movement is frequently underestimated in the planning of the execution, resulting in fixes that require lots of effort, such as the removal of the faulty coating from the sealant or in many serious cases the cutting out and replacement of the sealant.