



Den Braven

Discolouration in sealant joints

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General information

Sealants are used in building and industrial applications in many places under various circumstances and on several substrates. It may occur that the sealant joints show discoloration after a couple of days or weeks. In general the joints can be considered as a reasonably colour stable product. The best colour stability can be achieved with the acetoxo curing silicone sealants and acrylic sealants. The neutrally curing Silicone sealants are more sensitive to yellowing, which in many cases is caused by contact with chemical vapours and fluids. In practice it seems that if discoloration of the sealant joint occurs, this most often is caused by local circumstances, which will be further illustrated below.

Discoloration can be caused by:

- Discoloration as a result of of substrate material.
- Discoloration as a result of of contact with fluids.
- Discoloration as a result of of contact of vapours.

Discoloration because of substrate material

This situation concerns surfaces which contain ingredients that can migrate through the sealant and cause discoloration on the surface of the joint. Substrates known for this migration problem are: Bitumen, Neoprene, E.P.D.M., wax containing products and adhesive layers. (including adhesives used on transportation/protecting foils) Direct contact with these materials should be avoided by using backfilling or P.E. foam strip.

Another form of yellowing can occur if the sealant joints are taped with self-adhesive tape. This may happen when joints are taped before painting of ceilings or walls. Ingredients from the layer of glue can migrate into the sealant surface and lead to yellowing after the tape is removed.

Yellowing in contact with liquids

Liquids can cause discoloration, especially when they do contain acid - or alkaline ingredients. Think of cleaners, or even the soapy water used by the applicator to smooth the joint. (For soapy water always use a neutral soap)

Chemical vapours

Acid and alkaline vapours from detergents, may result in the yellowing of the sealant. Even if an acetoxo curing silicone sealant is in the same area as neutral curing silicone sealant this could result in discolouring of the neutral curing sealant. Coming into contact with cigarette smoke can cause yellowing. Make sure that during the curing phase of the sealant no acid or alkaline fluids, or vapours are able to come in contact with the sealant.



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