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# Discolouration in joint sealants

## FACTSHEET



## GLOBAL LEADER IN ADHESIVE TECHNOLOGIES

Bostik is one of the largest adhesive and sealant companies. Worldwide, we employ some 6,000 people in 50 countries across five continents. Our customers come from diverse markets, most notably the industrial manufacturing, construction and consumer sectors.

## SMART INNOVATIONS

Our smart identity is underpinned by innovation. We pursue innovation vigorously, applying the latest technological advances to developing 'smart' adhesives. Our archives are laden with examples of Bostik technologies that have disrupted markets - from potato starch-based wallpaper paste to elastic attachment adhesive for diapers.

Today, our commitment to innovation is as strong as ever. We innovate with our customers through a global R&D network, comprising three international Smart Technology Centres and 8 regional centres. And we differentiate our business through this investment.



## Discoloration in joint sealants

### 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 acetoxy curing silicone sealants and acrylic sealants. The neutrally curing silicone, some hybrid and polyurethane 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 long-term lack or exposure to UV.
- Discoloration as a result of substrate material.
- Discoloration as a result of contact with fluids.
- Discoloration as a result of contact of vapours.

### DISCOLORATION CAUSED BY 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.



### **DISCOLORATION CAUSED BY FLUIDS/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/CHEMICALS IN GENERAL/SOLVENTS**

Vapours from detergents, chemicals and solvents may result in the yellowing of the sealant. Even if an acetoxymethyl 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.

For more information please see FactSheet FS011.