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RHEINZINK is compatible with most common construction materials. The following outlines precautions related to specific materials; however, with proper detailing, incompatible materials may be used.

Underlayments

Underlayments must be compatible with zinc from a chemical and heat resistance perspective. Red Rosin paper should **NEVER** be used with zinc.

Sealants

Most sealants used in building envelopes are compatible with RHEINZINK. These include all sealants that are neutral or alkaline cure. Acidic cure sealants must not come in contact with RHEINZINK as they may cause corrosion.

Metals

Corrosion caused by electrochemical reactions can occur when two metals of differing electrochemical potential are combined in such a way that the metal with the higher electrochemical potential is located above the other such that rainwater flowing over it serves as an electrolyte. An example is RHEINZINK installed below copper. The resulting acidic water run-off from the copper onto the zinc will corrode the RHEINZINK. However, RHEINZINK may be installed above copper without adverse effects on either material but under no circumstances should the two metals be in contact on exterior applications.

Rust

Iron oxide will cause rust-brown colored stains if allowed to flow over the surface of RHEINZINK. However, corrosion will not occur. The effect is only aesthetic.

Experience has shown that there are no problems when RHEINZINK is combined with:

- Aluminum
- Galvanized Steel
- Stainless Steel
- Lead
- Painted Steel

Glass

RHEINZINK is compatible with glass as glass is considered inert. Under normal weather conditions, it neither releases any substances nor forms substances by reacting with other materials.



Administration Building, Luxembourg

Mortar and Concrete

Solid, dry, building materials do not themselves attack zinc. Corrosion is possible if the cavities, which exist in almost every building material, contain water and if enough oxygen can diffuse onto the zinc surface. Alkaline chlorine-free mortar or concrete does not lead to critical corrosion of zinc, even in the presence of a slight amount of moisture due to the formation of calcium hydroxide zincates. Zincates act as a protective coating and therefore make the zinc in contact with hardened concrete highly resistant to corrosion.

All types of mortar and concrete can become a corrosion problem through chlorides, which may have been added as a bonding agent or anti-freeze. Such problems may actively persist beyond the bonding or drying phase. Also, when RHEINZINK comes into contact with mortar residue that has not been removed promptly, the moisture content in the mortar can cause superficial changes that may cause an aesthetic defect. In addition, masonry-cleaning solutions must not come in contact with zinc, as they can cause staining and corrosion.

Wood and Wood Preservatives

Avoid placing RHEINZINK in contact with or downstream from acidic woods such as:

- Oak
- Red Cedar
- White Cedar
- Larch
- Hemlock
- Chestnut

Wood preservatives can have a corrosive effect on RHEINZINK if they are permitted to become wet. Discoloration and even corrosion can result. Proper detailing and separation between RHEINZINK and pressure treated woods should be used to avoid this condition.

Paint

Generally, acrylic resin based paints are regarded as inert and pose no threat to RHEINZINK, but PVC based paints can form corrosive solutions under certain conditions and, should be avoided. When painting RHEINZINK, choose the right paint, and apply it properly. The paint manufacturer's instructions should indicate the suitability of the paint and its method of application.