

KELATE®MR138

**THE CHOICE
BETWEEN**

**KELATE®MR6
AND
KELATE®MR138**



PRODUCT INFORMATION

KELATE®MR6 as well as KELATE®MR138 are surface treatments for corroded steel surfaces before painting.

Both treatments require a thorough hand or power cleaning conform to well accepted standards such as St2-St3 of the SWEDISH STANDARDS SIS 055900 before application.

Both products combine an **electrochemical** function to a **physical** barrier function.

The purpose of this technical information is to facilitate the choice of our customers between these two products.

The **electrochemical** function is build into the system by addition of high molecular weight corrosion inhibitors that neutralise the residual rust and provide upon reaction with iron ions an efficient anodic passivation of the surface.

The passivation however is only persistent when an additional moisture barrier is build-in simultaneously and (or) when the surface is further protected against atmospheric influences by an adequate paint system.

The difference between KELATE®MR6 and KELATE®MR138 is that in case of MR6 the electrochemical protection is predominant and in case of MR138 more emphasis is given to the barrier function.

The **barrier** function in both systems is provided by an elastic crosslinking polymer in aqueous emulsion.

Films made out of MR6 as well as from MR138 pass after reaction with the steel surface from soft and flexible to very tough compounds in course of time.

The final tough compounds maintain however high elasticity and adhesion to the substrate.



PRODUCT INFORMATION

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Crosslinking also occurs underneath a paint film and for that reason both products can be overcoated with a high variety of surface coatings such as:

- ⇒ Alkyd paints—all types including modified ones
- ⇒ Epoxy esters
- ⇒ Urethane oils
- ⇒ Thermoplastic paints-chlorinated rubbers-vinyls-acrylics-tar and bituminous compounds
- ⇒ Two component systems-epoxies and polyurethanes.

KELATE®MR6 shows higher reactivity and provides a better and safer quality of passivation to the surface than MR138.

KELATE®MR6 is a typical conversion coating of limited thickness and has to be overcoated as soon as possible, preferably within 48 hours.

KELATE®MR138 shows lower reactivity than MR6 but superior barrier properties due to its higher coating thickness.

KELATE®MR138 is to be recommended for **temporary protection** of steel surfaces in all cases where overcoating within a time limit of 48 hours is not possible.

KELATE®MR138 is also preferable on MR6 in thin coat applications i.e. when used in combination with paint systems of limited coating thickness. A total coating thickness of 50 micron can be considered as the lower limit.

