



**Reactive Rust
Conversion Coat
For steel**

KELATE[®]

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What it is

KELATE® is a highly reactive water reducible chelating polymer for rust passivation on rusted steel which has been hand or power cleaned, or blasted

What it does

KELATE® neutralizes the corrosion process. It reacts quickly (3 hours) with the rust and transforms iron oxides into a stable and insoluble blue-black metallo-organic complex which is ready for painting after reaction.

KELATE® effects a thorough chemical passivation of the substrate and makes it a sound base for the application of coating systems.

Where to use

KELATE® can be applied on any rusted surface which has been mechanically brushed (CST2 standards). It will also react with mechanically activated steel like blasted steel.

MAIN PROPERTIES

COLOR	Beige
ODOR	Slight
DENSITY	1.02 ± 0.05 g/cm ³
PH VALUE (20°)	1.5 ± 0.5
COVERAGE	± 20m ² /litre
DRYING TIME	3 hours
APPLICATION temperature	5°C - 35°C
AIR SPRAY application	Nozzle orifice mm 1.3-1.5 Nozzle pressure bar 3-4
SHELF-LIFE	Min. 12 months

Indications for use

1. Surface preparation:

Apply on a rusted surface which is clean. Remove oil and grease before brushing. Loose rust and mill scale are removed by metallic brush, abrasive disk or paper. This surface corresponds with CSt2-DSt2 standards for painting steel surfaces. In heavy industrial and marine atmospheres, rust always contains soluble salts; these surfaces must be washed down with clear water before treatment



2. Application:

Ready to use. Apply only on rusted surfaces. One single application without excess is enough. Use preferably a stiff brush to assist penetration into the rust. Avoid the product to run off over the surface. Application by roller or pneumatic spray is acceptable. Temperature range for application : 0-40°C or 32-104°F. Can be applied on humid surfaces. Average coverage: 20 m²/litre



3. Paint systems :

Is not a paint. For long-term protection, the treated surface must be protected by a suitable paint system. Painting should be carried out preferably within 48 hours after application. Paint must not be applied on Kelate® while it is reacting with the rust. The reaction time is 3 hours and is characterized by the surface turning a blue-black color. Remove by rinsing with water or methylated spirit Kelate® which has been splashed outside the surface to treat. Most solvent-based metal protective paints can be used over Kelate®. Types of paints and the number of coats needed will be determined by the aggressiveness of the environment.



1

Limited surface preparation

Provides full rust passivation on adequate surfaces (CSt2-DSt2 standards).
Allows to save on costly additional mechanical surface preparation. Can be applied on humid surfaces



2

Reactive and efficient

High reactivity: penetrates into steel surfaces
Visible reaction: surface turns blue-black
Only one coat without excess
High coverage (20m²/litre)
No need to rinse off the surface after reaction



3

Increases paints durability

Coatable after 3 hours
Adhesion promoter for subsequent coatings.
No brush marks (thin and homogeneous coat).
Compatible with most solvent-based metal protective paints.



4

Safe to use

Water based – Zero VOC -
Low environmental impact
Phosphoric acid free
Not irritant nor corrosive
Long shelf-life
40 years experience



The Kelate® range

MR6	Concentrated
MR6D	Ready to use
MR138	Extra physical barrier
MR80	For high temperatures (40-60°C)
WAX	Active (water based) Wax system



Ferrous surfaces

such as railings, radiators, fences, concrete steels (pillars, beams, balconies, facades, etc.)

Automotive

ideal for small areas of rust, stone chips and scratches, ...

On steel surfaces

which cannot be blasted and/or are partially rerusted (cavities). On blasted surfaces to prevent or passivate «flash rust».

Marine

on all rusted steel surfaces before painting or repainting when preparation by blasting is a problem, e.g. cargo holds, decks, hatch covers, superstructures, pipelines, winches, rails etc.

KELATE®

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Our Expertise. Your products.

Upon request we can supply tailor-made formulas of our rust conversion solutions.

Our services include retail-ready packaging (from 100ml to 60l) with your own labels.

We will assist you in designing and optimizing your formulations.

We can also advise you for all questions related to labelling, safety data-sheets and of course packaging.

Last but not least, all our processes are driven according to ISO 9001 quality management system.

PUGH & CO INTERNATIONAL, founded in 1947, is a privately-owned company for production and service to industry, operating in three divisions working on base of ISO 9001 quality management system. We produce innovative surface treatments for metal protection since more than 40 years.

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