

# Technical Data Sheet

## Technisches Datenblatt

### TPdur bright

Permanent, transparent Anti-Graffiti-, Easy-to-Clean Coating

#### PROPERTIES/PRODUCT DESCRIPTION

- Permanent clear coating
- Excellent protection against graffiti
- Easy-to-Clean
- Excellent adhesion to most substrates
- Outstanding weather resistance
- High UV and chemical resistance
- Economical
- Easy to apply
- Cures at room temperature
- Fluorine-free

**TPdur bright** is a clear, ready-to-use coating solution that protects smooth, non-absorbent surfaces against graffiti and dirt. Based on a patented polysilazane technology, **TPdur bright** forms a permanent barrier layer that bonds chemically with the substrate and cures at room temperature with atmospheric humidity.

The surface protected with **TPdur bright** can be cleaned repeatedly without reapplying the product.

#### USE

**TPdur bright** is particularly suitable for smooth, non-absorbent surfaces, such as one- or two-component paints (polyurethane or epoxy systems), polyester paints, GRP surfaces, aluminium surfaces. ***The preferred use is for the exterior of commuter and intercity trains, trams and underground trains.***

#### PRODUCT APPLICATION/TOOLS

**TPdur bright** is supplied ready-to-use.

Depending on the substrate **TPdur bright** can be applied with microfiber applicators or paint rollers (microfiber-flocking).

The product is also suitable for spray application.

#### Spray application:

<i>Process:</i>	HVLP-compressed air
<i>Spray gun:</i>	e.g. SATA minijet HVLP
<i>Working pressure:</i>	ca. 2 – 3 bar
<i>Nozzles:</i>	0.8 – 1.3 mm

The spray gun can be cleaned with n-butyl acetate, for example.

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### TECHNICAL DATA

Article Number:	214052
Appearance:	colorless to pale yellow liquid
Density:	ca. 0.93 g/cm <sup>3</sup>
Solid content:	20 – 60 %
Binder base:	organic polysilazane
Solvent base:	n-butyl acetate
Flash point:	< 21 °C
Shelf life:	12 months from production date at, 20 °C
Container size:	6 liter alu bottle containing 5 liters

### APPLICATION INSTRUCTIONS

The product should be applied by trained personnel only.

**Test on a small area or apply a test coat before application.**

### CONDITION OF SUBSTRATE

The substrate to be coated must be clean, grease-free and absolutely dry. Areas which are difficult to reach, such as cavities or drainage channels etc. must be dried additionally with absorbent cloths or blown dry with compressed air.

On contact with a damp substrate surface, **TPdur bright** reacts prematurely and cannot form a permanent seal.

The substrate temperature must be between + 5 °C and + 30 °C, the relative humidity at 30 % - 80 %.

### APPLICATION

**TPdur bright** must be applied at an ambient temperature of at least + 5°C and a relative humidity of 30 % - 80 %. Avoid direct sunlight! Apply the coating in dry conditions and never in rain.

The coating is applied with an applicator. Any mistakes can be rectified within approx. 10 min of application. After this the repellent effect of **TPdur bright** makes it impossible to apply another coat. The average coverage is ca 15 ml/m<sup>2</sup> and this should not be significantly exceeded.

During application, only small quantities should be decanted from the original container into the application container. Residues of unused **TPdur bright** should not be returned from the application container to the original container.

Traces of water in the applicator should also be avoided. Applicators dampened with water should not be used. If dirt appears on the applicators during coating, they should be replaced with clean applicators to avoid dirt entering the **TPdur** coating. The applicators cannot be reused once the coating has been applied. If the solution in the application container solidifies or a deposit forms, it can no longer be used. Solutions that are no longer useable must be disposed of properly.

**TPdur bright** is dry-to-touch after about one hour.

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The recommended curing conditions (until water resistant) are:

- Room temperature: 8 – 12 hours
- 80 °C: two hours
- 130 °C – 180 °C: one hour

The **TPdur** coating is fully effective after 5 – 7 days' curing at room temperature. During this time, the train or tram should not be driven into a vehicle wash. On metal surfaces such as aluminum, steel and stainless steel, curing at > 80°C is recommended to achieve optimum adhesion to the substrate.

### SAFETY INSTRUCTIONS

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The instructions on the accompanying Safety Data Sheet must always be followed.

### CLEANING AND GRAFFITI REMOVAL

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Surfaces coated with **TPdur bright** should be cleaned with cleaners in the pH range 3 – 12. Strong (mineral) acids or alkalis should be avoided and are also unnecessary as neutral cleaners are generally sufficient to clean vehicles coated with **TPdur bright**.

Graffiti should always be removed from the coated surfaces as quickly as possible. Conventional graffiti removers can be used.

### TECHNICAL SERVICE

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Our Application Department is available to answer technical questions on performance, use and chemical specifications.

We provide information and advice on application technologies and relevant regulations based upon our current knowledge and opinion. WE MAKE NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, WITH RESPECT TO SUCH INFORMATION OR ITS APPLICATION. Customers must independently determine the suitability of our products for the customer's intended product, use or process. Customer is responsible for observing all laws and regulations relevant to such products, uses or processes. The foregoing information and suggestions are also provided without warranty of non-infringement as to intellectual property rights of third parties and shall not be construed as any inducement to infringe the rights of third parties. Customer shall be responsible for obtaining any applicable third party intellectual property licenses. Any reference from our literature requires prior written consent and in any reference the source shall be stated.

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