



## Technical Data Sheet

# Teodur<sup>®</sup> AP Semi Gloss

The information given in this datasheet is generic for the **TEODUR<sup>®</sup> AP Semi Gloss** range. For specific products within the range, please consult us.

### Product Description

The **TEODUR<sup>®</sup> AP** range is a TGIC-free polyester powder coating, containing high performance carboxyl polyester resin.  
It has excellent weathering resistance.

### Products

#### TEODUR<sup>®</sup> AP Semi Gloss

Products exist in smooth finish and can be formulated in a wide range of appearances.

**Packaging:** 15 or 20 kg in plastic bag and cardboard box (depending on the specific gravity).

### Approvals

**Qualicoat :** P-0817 (Fr), P-0398 (UK), P-0615 (Ge), P-0767 (Sw)

**Marine:** CE 0575 (Sw, Ge, UK), CE 0062 (Fr)

**GSB :** 171j

This powder coating complies with the European Directives "Restriction of the use of certain hazardous substances" 2002/95/EC and 2011/65/EU (RoHS).

Other : Meets the requirements of EN12206 (formerly BS6496), EN13438 (formerly BS6497).

### Colours

Any colour available

-> Standard RAL colours: on stock

-> Others: on demand

Please contact us for further details.

### Substrates

In principle used on **outdoor architectural substrates:**

-> Aluminium profiles and sheets

-> Steel or galvanized steel for cladding

-> Verandas, doors, window frames

Can also be used for the protection and decoration of indoor equipment (please contact us for further information)

### Substrate Preparation

On aluminium, steel and hot-dip galvanized steel : both chemical pre-treatment and mechanical surface preparation are compatible with Alesta<sup>®</sup> AP. Surface preparation should be chosen according to type of substrate and required performance.

On steel and hot-dip galvanized steel, corrosion resistance may be further enhanced by the use of our Alesta<sup>®</sup> ZeroZinc protective primers. (please contact us for further information).

The suitability of the surface preparation should be tested by the coater beforehand using appropriate test methods. Reference should be made to guidelines issued by Qualicoat, Qualisteelcoat and GSB.



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| Physical Properties        |   |
|----------------------------|---|
| Specific Gravity           | 1,3 – 1,7   |
| Particle Size distribution | 100 % < 160 microns, can be tailored to suit specific application equipment |

The following performances have been obtained under the conditions described below and in laboratory. Actual product properties such as gloss, colour and finish may vary according to condition of application.

| Product Performance / Film Properties          |  |  |
|--|--|--|
| CONDITIONS                                     |  |  |
| Aluminium panels                               | 5005 AA, 0.8 mm (AA6060 or AA6063 for acetic Salt Spray) |  |
| Surface pretreatment                           | Chemical conversion                                      |  |
| Film Thickness                                 | 70 µm +/- 10   |  |
| Curing Conditions                              | 12' @ 180°C (object temperature)                         |  |
| TESTS  | SPECIFICATIONS   | SEMI GLOSS   |
|  | N°   |  |
| Thickness                                      | EN ISO 2360  | 60-80 microns  |
| Gloss @ 60°                                    | EN ISO 2813  | 60-80<br>Batch tolerance +/- 5   |
| Adhesion                                       | EN ISO 2409  | Class 0  |
| Buchholz                                       | EN ISO 2815  | 80   |
| Erichsen                                       | EN ISO 1520  | 5 mm   |
| Cylindrical flexibility                        | EN ISO 1519  | 5 mm   |
| Kesternich (SO <sub>2</sub> )                  | EN ISO 3231  | 24 cycles  |
| Acetic salt spray                              | EN ISO 9227  | 1000 hours   |
| Impact resistance                              | EN ISO6272   | 2.5 Nm   |
| Resistance to boiling water                    |  | No defect or peeling after 2 hours   |
| Constant Climate<br>Condensation Water<br>Test | EN ISO 6270-2  | 1000 hours   |
| Weathering (Florida)<br><b>Qualicoat</b>       | ISO 2810   | <b>1 Year</b><br><b>Residual Gloss</b> : ≥ 50 %<br><b>Colour change</b> : Δ E : according to Qualicoat requirements (appendix A7)                        |
| <b>GSB</b>                                     |  | <b>Residual Gloss</b> : ≥ 50 %<br><b>Colour Change</b> ΔL*, ΔC* : according to GSB AL 631 section 9.19.1   |
| Accelerated weathering<br><b>Qualicoat</b>     | EN ISO 11341   | <b>1000 hours exposure Xenon Lamp</b><br><b>Residual Gloss</b> : ≥ 50 %<br><b>Colour change:</b> Δ E : according to Qualicoat requirements (appendix A7) |
| <b>GSB</b>                                     | ISO 16474-3  | <b>300 hours exposure QUV-B</b><br><b>Residual Gloss</b> : ≥ 50 %  |



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### Baking Window

- **Advice and limits:**

-> Can be cured using a variety of methods, e.g. IR, convection, combi ovens.

-> In direct gas ovens, combustion byproducts may cause significant colour changes (for specific advice, please contact us)

### General curing conditions : TEODUR<sup>®</sup> AP Semi Gloss

- **Object t° / time**

190°C 7' - 22'

180°C 12' - 32'

170°C 17' - 37'

### Application

- Do not mix this product with another powder.
- Substrate should be correctly cleaned before use.
- Application using either manual or automatic electrostatic guns.
- The majority of our products can be applied using the TRIBO electric process. (please contact us for specific products)
- Film thickness: the required application settings will depend upon the geometry of the object being coated as well as the specified film thickness. It is the responsibility of the applicator to make the appropriate adjustments. Certain colours should be applied at higher film thickness to ensure full coverage and therefore colour homogeneity. Below this limit, colour variation may happen due to thickness variation.
- Despite the great care that is taken during our manufacturing process, small colour or other slight appearance variations from batch to batch are unavoidable for effect colours. Therefore we recommend that a single batch of powder coatings should be used to coat parts that will be subsequently assembled together. Differences are more likely with effect powder coatings such as metallic, pearlescent, speckled, textured and combinations thereof. Differences will be more easily visible on large coated parts such as cladding panels, flat sheets etc.
- Recycling of the powder: possible up to 30 % with exception of some metallic and pearlescent products (please contact us for details).

### Comments

- Certain chemicals or domestic cleaning products can cause damage to the appearance of the coating. Please test a small inconspicuous area first to confirm suitability.
- For maintenance of material coated with TEODUR<sup>®</sup> AP powder coating, it is extremely important to follow our recommendations. (defined in the TEODUR<sup>®</sup> AP warranty document)
- Strict implementation of the correct maintenance procedure is needed to maintain the validity of the warranty and the decorative appearance of the coating.



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### Storage Stability

36 months @ 35°C

Shelflife applies to materials stored in sealed plastic bags under dry and cool conditions i.e. temperatures below 35°C.

### Safety

Consult the Safety Data Sheet prior to use

The information provided herein corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since Axalta cannot anticipate all variations in actual end-use conditions Axalta makes no warranties and assumes no liability in connection with any of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights.

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