Alesta® SD
Superdurable Architectural SD Matt
SD300C7700820 RAL 7008 KHAKI GREY

Superdurable Architectural is a superdurable TGIC free and lead free polyester powder coating, especially formulated for application on aluminum extrusion and sheets, steel and galvanized steel substrates. Superdurable Architectural meets the requirements of the building industry thanks to its outstanding outdoor durability.

Characteristics
- Matt Smooth
- Solid
- Corona

Colour Chart
- RAL 840-HR

Usage Area
- Aluminum profiles and sheets
- Verandas, doors, window frames, facades
- Urban furniture
- Steel or galvanized steel for cladding

Approvals

Qualicoat	Class 2: P-1209, P-1388, P-1305, P-1141, P-1875
GSB	Florida 3: 171h

- Product approved by QUALICOAT
- QUALICOAT is a quality label for licensed coater
- This powder coating complies with the European Directives "Restriction of the use of certain hazardous substances" 2011/65/EU and 2015/863/EU (RoHS)
- Meets the requirements of AAMA 2604-13
- Meets the requirements of EN 12206-1 (formerly BS 6496), EN 13438 (formerly BS 6497)
- Classification A2 (non flammable) of reaction to fire in accordance with NF EN 13501-1:2018
- Type-III Environmental Product Declaration (EPD) available based on an LCA-dossier according to ISO 14025 and EN 15804+A2

The following data has been obtained under laboratory conditions as described below. Actual product properties such as gloss, colour and finish may vary depending on application conditions.

Test Conditions

Curing Conditions (object temperature)	12 min @ 190°C
Substrate	0,8 mm AA5005 Aluminium panels (AA6060 or AA6063 for Acetic Salt Spray)
Film thickness EN ISO 2360	70 ± 10 µm

Physical Data

Density calculated	1,53 g/cm³

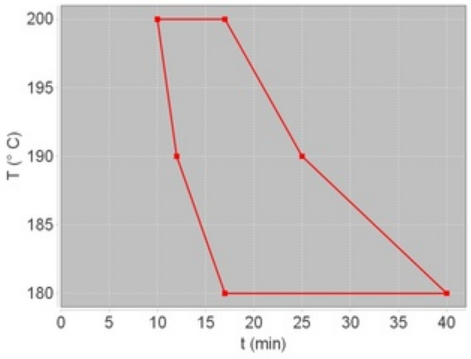
Product Performance / Film Properties

Gloss @ 60° EN ISO 2813	30 ± 5
Impact Resistance EN ISO 6272 / ASTM D2794	2,5 Nm / 22 inch-pound (no sign of detachment, cracks permitted)
Adhesion EN ISO 2409	GT0
Buchholz Hardness EN ISO 2815	80
Erichsen Cupping EN ISO 1520	5 mm (no sign of detachment, cracks permitted)
Cylindrical Mandrel Bending EN ISO 1519	5 mm (no sign of detachment, cracks permitted)
Mar Resistance (Martindale) CEN/TS 16611 (according to Qualicoat)	Residual gloss 50-70 %
Kesternich (SO2) 30 cycles EN ISO 3231	No change
Acetic Salt Spray 1000 h EN ISO 9227	Maximum 16 mm² infiltration over a scratch length of 10 cm
Resistance to Boiling Water	No defect or peeling after 2 hours
Humidity Chamber 1000 h EN ISO 6270-2	No blistering
Mortar Resistance EN 12206-1	No change (in accordance with Qualicoat requirements)
Weathering - Florida EN ISO 2810	3 years, Residual gloss ≥ 50% EN ISO 2810, Colour change ΔE: According to Qualicoat requirements, Colour Change ΔL*, ΔC*: According to GSB
Accelerated weathering - Xenon lamp EN ISO 16474-2	1000 hours, Residual Gloss ≥ 90 %, Colour change ΔE: ≤ 50 % according to Qualicoat requirements
Accelerated Weathering - UVB-313 EN ISO 16474-3	600 hours, Residual gloss ≥ 50%

Curing Conditions (object temperature)

Can be cured using a variety of methods, e.g. IR, convection, combi ovens. In direct gas ovens, combustion by-products may cause significant colour changes (for specific advice, please contact us).

10-17 min @ 200°C
12-25 min @ 190°C
17-40 min @ 180°C



Storage Stability

24 months/35°C
Shelf life applies to materials stored in sealed plastic bags under dry and cool conditions.

Substrate Preparation

- On aluminium, steel and hot-dip galvanized steel: both chemical pre-treatment (including pre-anodising for aluminium) and mechanical surface preparation are compatible with Superdurable Architectural. 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® 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.

Application

- Do not mix this product with other powder coatings. Superdurable powders are more likely to contaminate standard durability powders. The system (application equipment, spray booth etc) should be adequately cleaned following use and, whenever possible, the following powder coating should be non-sensitive to contamination (for example a textured finish).
- Substrate should be correctly cleaned before use.
- Can be applied with manual or automatic guns.
- Film thickness: application settings will depend upon the geometry of the object being coated as well as the required 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 occur due to differences in film thickness
- Great care is taken during our manufacturing process but small variations in colour and/or appearance are unavoidable with effect colours. Therefore we recommend that a single batch of powder coating 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 % for solid colours. For special finishes (for example metallic, pearlescent, speckled), please refer to our website and the 'Metallics are us – Tips for Users' guide.

Comments

- Certain chemicals or domestic cleaning products may cause damage to the appearance of the coating. We recommend testing a small inconspicuous area first to confirm suitability.
- For maintenance of material coated with Superdurable Architectural powder coating, it is extremely important to follow our recommendations (defined in the Alesta® SD 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.
- In instances where the coating will be subjected to additional processes (such as printing, labelling, overcoating, postforming, gluing, application of sealant or any other post-treatment), adequate testing should be performed to confirm suitability. Prototypes should be prepared under conditions that are representative of the final production process.
- Coated parts should be packed after they are fully cooled using suitable materials that are free of plasticizers. Packaged parts should be stored under cover to avoid the formation of condensation (for example under plastic wrapping film) which could result in permanent marks on the surface of the coating.

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.