

IGP

POWDER COATED TOP FINISHES

brunner ::

IGP-DURA[®] xal – TECHNOLOGICAL SPECIFICATIONS

Excerpt from tested product features

General material characteristics / application range	
Line	Application
IGP-DURA [®] xal, 42 Material approval: Qualicoat N°. P-1164, class 2	Powder coating for highly weather-resistant architectural applications with extremely high color and weather fastness. Suitable for components in architectural, infrastructure and nautical applications with high demands to appearance and UV resistance.
IGP-DURA [®] xal, 46 Weather-proof standard without architectural authorisation	Powder coating for weather-proof industrial applications. Homogenous light reflection and high covering power. Suitable for industry products with highly decorative requirements such as light housings, displays, sport equipments, electronic and communication devices.
Visual impression	Both ranges of products provide outstanding flow properties, allowing a perfect coating of edges without disturbing "picture frame effects", thus creating a smooth, deep-matt surface aspect.
Workability	Easy application, 60 kV – 80 kV max.; good penetration depth, suitable for vertical systems (not suitable for Tribo application).
Recycling	A fluid reservoir is recommended with fresh powder addition, fresh powder ratio should not be less than 75 %.
Color change	Compatibility with other products, no contamination.
Cleaning	Easy to clean due to the high degree of cross-linking, low porosity and high density. Resistance against neutral cleaning agents.

Material data		
Properties	Norm, testing	Result
Gloss level	DIN EN ISO 2813	< 12R' / 60 °C at object temperature ≥ 200 °C / 10 min.
Coating thickness	DIN EN ISO 2360	Depending on covering power and shade, min. > 60 µm
Density		1.2 – 1.6 kg / l
Consumption		125 g / m² ± 10 g at approx. 80 µm, depending on shade
Cross-cut adhesion test	DIN EN ISO 2409	Gt 0
Impact penetration	DIN EN ISO 6272-1	> 2.5 Nm, tape test
Erichsen cupping	DIN EN ISO 1520	> 5 mm, tape test
Buchholz hardness	DIN EN ISO 2815	> 80
Water condensate constant	DIN EN ISO 6270-2 CH	1000 h, no infiltration, no blisters
ESS salt spray test	DIN EN ISO 9227 AASS	1000 h, no infiltration, no blisters
Moisture resistance	GSB testing procedure 16	L: < 4, valid for the IGP-DURA [®] xal 4201 product quality
Mortar resistance	DIN EN ISO 12206-1 (sect. 5.9)	24 h, residue-free removal

The technological properties were measured at a coating thickness of 60 – 85 µm on chromatised aluminium 0,8 mm aluminium sheet. Test sheets were stored for 10 min. at 200 °C object temperature. Result deviations due to different curing temperatures cannot be precluded.

For application on extruded, rolled or cast metals and/or non-ferrous metals, and pre-anodised aluminium alloys.

Possible substrates and pre-treatments	
Substrates	Pre-treatment
Aluminium	With chrome content (DIN EN 12487) or chrome-free pre-treatment: a pre-sampling is recommended for chrome-free PT and with pre-anodisation as well as the observance of the certification regulations.
Steel	Suitable zinc phosphating alternatively: blasting at SA 2 ½, priming with IGP-KORROPRIMER 10 (anti-corrosive primer).
Galvanised steel	Chromatising in accordance with GSB regulations or appropriate zinc phosphating, alternatively: sweep and prime with IGP-KORROPRIMER 10.
Casting or other	Pre-treatment should be determined on a case-by-case basis.

IGP-DURA[®] xal – DEEP-MATT SURFACE DESIGNS FOR TOP QUALITY ARCHITECTURAL AND DESIGN APPLICATIONS

IGP-DURA[®] xal is more than just a powder coating! The elegant IGP-DURA[®] xal has an unmistakable material quality and resembles smooth matt anodised aluminium, due to its fine micro-structure. It also has excellent cleaning properties and is resistant to weather and mechanical effects.

Unrivalled surface effect and range of design options

- Deep-matt, satiny surface finish, gloss reflections
- Excellent coating characteristics
- Wide range of colors and effects
- Resembles an anodised surface on steel, cast components and aluminium alloys

Safety and application

- High recycling stability (IGP premium bonding)
- Simple and safe application
- Reproducible, homogeneous finish

Environment

- No toxic ingredients
- No emissions after manufacture
- Environmentally-friendly production in powder coating quality

Economy

- Maximum utilisation of materials
- Long-lasting surface quality
- Problem-free facade cleaning

Two product qualities for perfect results

IGP-DURA[®] xal 4201

- Highly weather-resistant quality
- Excellent color-fastness and gloss stability
- Approved for highly weather-resistant systems (Qualicoat Class 2, N°. P-1124)
- Long warranty periods
- Effect and plain colors in a highly weather-resistant color spectrum, shades adapted to special shades*

IGP-DURA[®] xal 4601

- Weather-resistant industrial quality
- Above-average chemical resistance
- Expanded color range in effect and plain colors with numerous additional RAL, NCS and special shades*

Liquid supplemental lacquer

As a wet variation for IGP-DURA[®] xal powder, the optional product DOLD SPACELINE DURA[®] xal LIQUID is available for the stationary coating of facades and architectural elements (Manufacturer: DOLD AG, Wallisellen).

* Special shades in accordance with customer specifications with pearl mica effect can be produced starting at a minimum order quantity of 200 kg.

Product tested and approved
for the quality trade-mark

 **swiss quality**



Gemeindehaus Volketswil, Volketswil

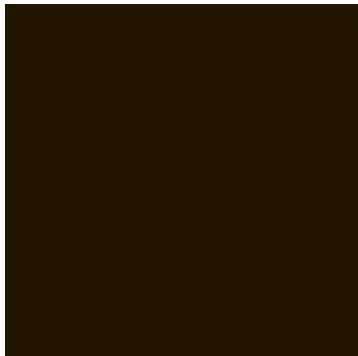


VorZug, Baar

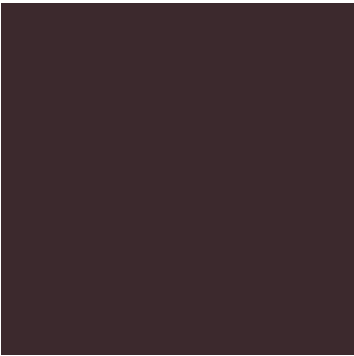


Limmathof, Baden

xal-Classic 35 4201U82305L10



xal-Trend 15 4201E32117L3F



xal-Style 27 4201E75918L3F



Unrivalled surface effect and range of design options

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- Wide range of colors and effects
- Resembles an anodised surface on steel, cast components and aluminium alloys

- Safety and application
- High recycling stability
 - Simple and safe application
 - Reproducible, homogeneous finish

- Environment
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 - Environmentally-friendly production in powder coating quality

- Economy
- Maximum utilisation of materials
 - Long-lasting surface quality
 - Problem-free facade cleaning

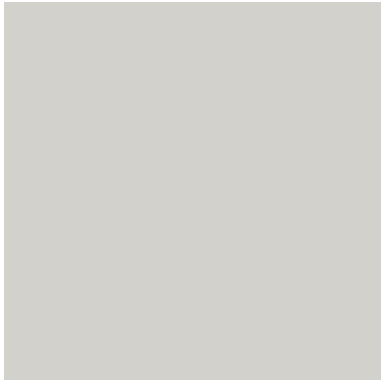
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- Excellent color-fastness and gloss stability
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CLASSIC

IGP-DURA[®] xal 4201

xal-Classic 01 4201E75281L3F



xal-Classic 31 4201E75268L3F



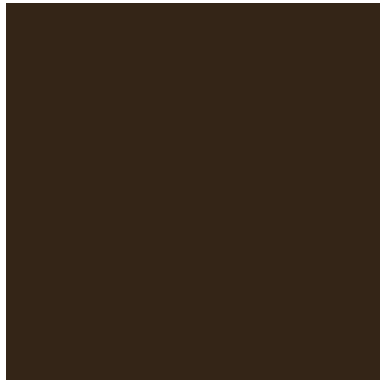
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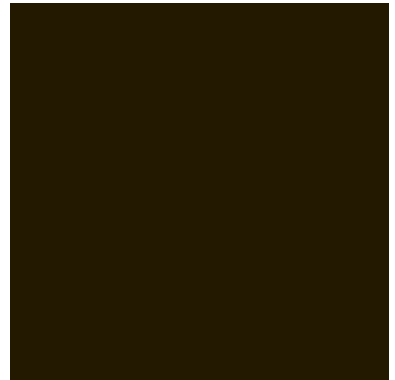
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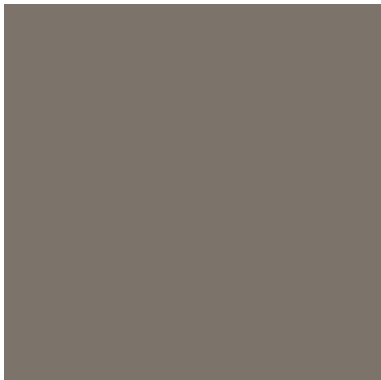
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xal-Classic 35 4201E82305L3F



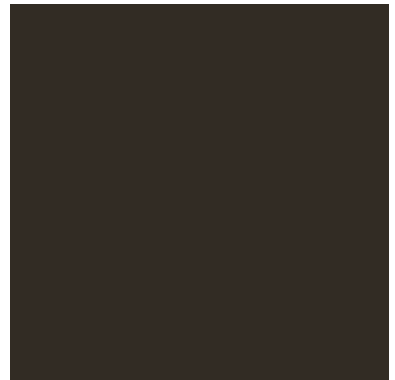
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xal-Classic 37 4201E75305L3F



xal-Classic 38 4201E82306L3F



Non-binding color samples:

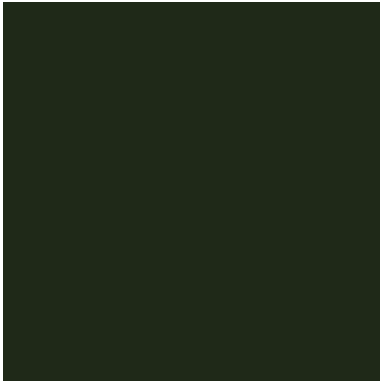
Production-related and / or application-related deviations are possible. Please refer to our "Technical Data Sheets".

TREND

IGP-DURA[®] xal 4201

xal-Trend 12

4201E64139L3F



xal-Trend 10

4201E77053L3F



xal-Trend 3

4201E92246L3F



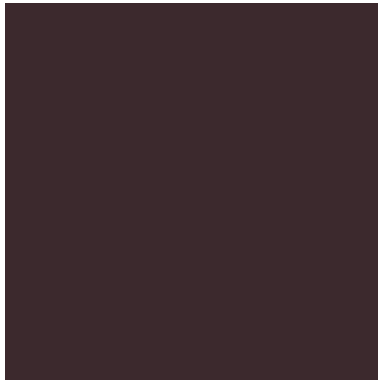
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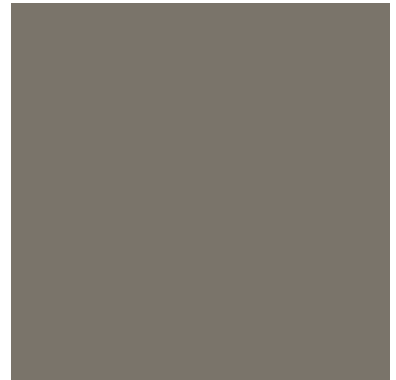
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xal-Trend 6

4201E90071L3F



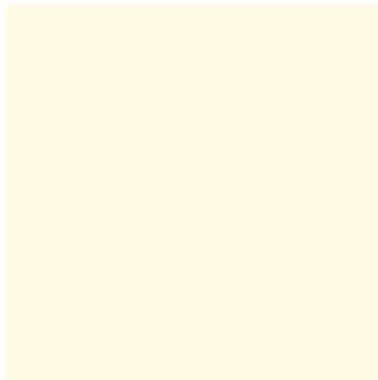
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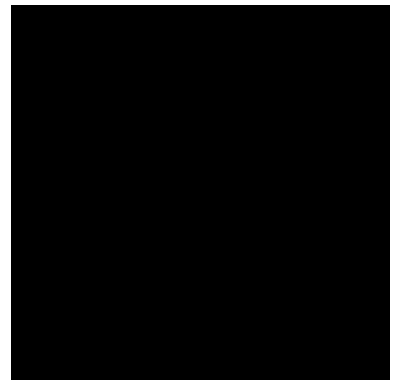
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xal-Trend 11

4201E90171L3F



DESIGN

IGP-DURA[®] xal 4601

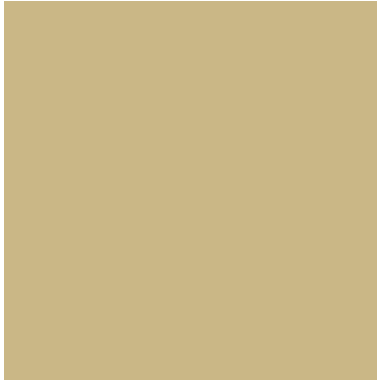
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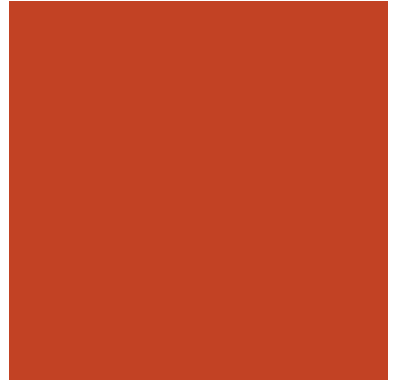
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xal-Design 15

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xal-Design 17

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xal-Design 21

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xal-Design 22

4601A11841L10



xal-Design 25

4601A32007L10



xal-Design 24

4601A53422L10



xal-Design 26

4601A63886L10



STYLE

IGP-DURA[®] xal 4201

xal-Style 21

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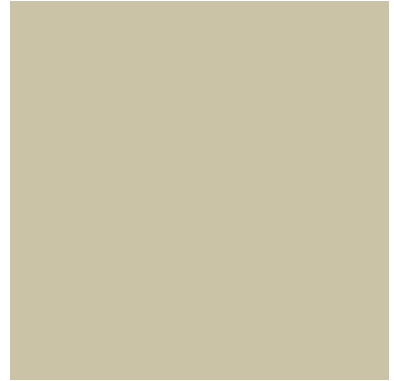
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xal-Style 23

4201E76256L3F



xal-Style 30

4201E81872L3F



xal-Style 25

4201E13343L3F



xal-Style 26

4201E82291L3F



xal-Style 27

4201E75918L3F



xal-Style 28

4201H75827L3F



xal-Style 31

4201E76778L3M



