

# IGP-DURA<sup>®</sup> *xal* – TECHNOLOGICAL VALUES

## Extract of tested product properties

General material characteristics / applications	
Series	Application
<b>IGP-DURA<sup>®</sup> <i>xal</i>, 4201 Type L</b> Material approval Qualicoat class 2	Special powder coating for highly weather-resistant architectural applications with extraordinarily high color and weather stability. Suitable for façade components, infrastructural facilities as well as outdoor accessories.
<b>IGP-DURA<sup>®</sup> <i>xal</i>, 4601 Type L</b> Outdoor-suitable quality	Special powder coating for weather-resistant exterior industrial applications with high decorative demands, including lamp housings, displays, sports equipment, electronic and communication devices.
Optical impression	Both series exhibit outstanding coating characteristics following the edges exactly, without disruptive "photo frame effects", and producing a velvety, deep matt surface.
Processability	Good depth of penetration, suitable for vertical plants (not for tribo); ensures that the conveyor hangers are homogeneously equipped with workpieces of a similar material thickness or the same heating behavior.
Recycling	Adding fresh powder using fluid containers is recommended. When processing items containing effect particles, the share of recycled powder must not exceed 30%. The share is defined by the coater with the aid of limit samples. Start of coating with powder mixture.
Color change	Compatibility with other products, no contamination.
Cleaning	Excellent cleanability thanks to the high degree of cross-linking, low porosity and high density; resistance to neutral cleaning agents. Cleaning must not be performed using abrasive motions or agents.

Material data		
Properties	Norm, testing	Result
Gloss level	DIN EN ISO 2813	< 12R / 60° at object temperature ≥ 180 °C / 20 min.
Coating thickness	DIN EN ISO 2360	Depending on covering power and shade, min. > 60 µm
Density		1,2 – 1,6 kg/l
Consumption		115 g / m <sup>2</sup> ± 10g at approx. 80 µm, dependent on shade
Cross-cut adhesion test	DIN EN ISO 2409	Gt 0
Impact penetration	DIN EN ISO 6272-1	> 2,5 Nm, tape test
Richsen 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 AL 631/ST 663; Part IV, DE 2019 12	ΔL: < 4, valid for product quality IGP-DURA <sup>®</sup> <i>xal</i> 4201
Mortar resistance	DIN EN ISO 12206-1 (sect. 5.9)	24 h, can be removed free from residue

The technological properties were measured with a coating thickness of 60–85 µm on chromatinized aluminum 0,8 mm alu sheet. For project coating applications, the object temperature of the work pieces must be at least 180 °C during the intended cross-linking period of 20 min in order to achieve the intended gloss corridor.

For applications on extruded, rolled or cast metals and non-ferrous metals as well as pre-anodized aluminum alloys.

Possible substrates and pre-treatments	
Substrates	Pre-treatment
Aluminium	Chrome-containing (DIN EN 12487) or chrome-free pre-treatment; for chrome-free pre-treatment as well as pre-anodization, a preliminary sample is recommended, as well as compliance with the regulations of the certifications.
Steel	Suitable zinc phosphating. Alternatively: Blasting on SA 2 ½, priming with IGP-KORROPRIMER 60.
Galvanised steel	Chemical pre-treatment with GSB- and Qualicoat-certified pre-treatment chemicals. Alternatively: Sweeping and priming with IGP-KORROPRIMER 60.
Casting, incl.	Pre-treatment is to be checked on a case-by-case basis.

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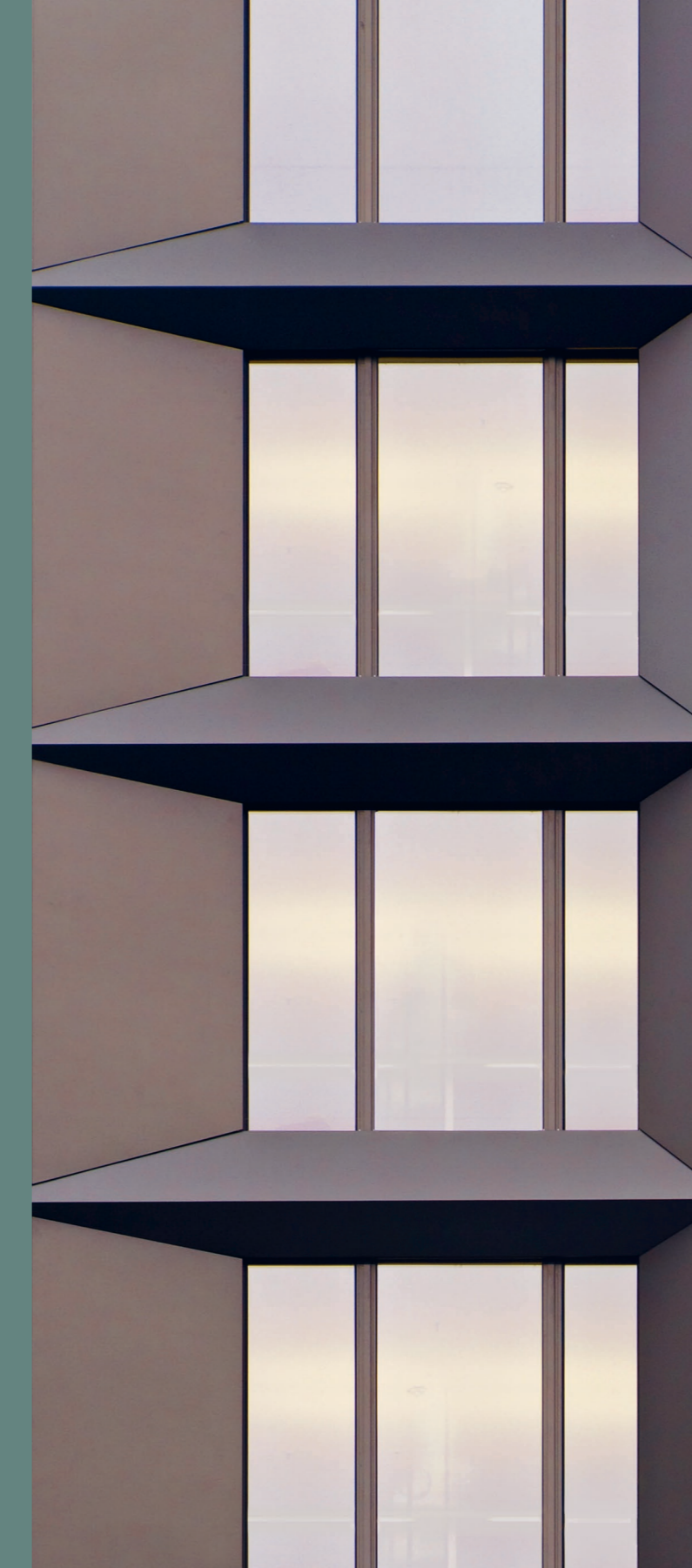
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## IGP-DURA<sup>®</sup> *xal*

Deep matt powder coating system for elegant and exceptional surfaces in the architecture and design area

**New: Optimized range of curing conditions for accelerated processes and narrower gloss tolerances**



# IGP-DURA<sup>®</sup> *xal* – DEEP MATT SURFACES FOR THE HIGH-QUALITY ARCHITECTURE AND DESIGN AREA

The elegant IGP-DURA<sup>®</sup> *xal* powder coating has an inimitable material quality and, with its fine micro-structure, has the velvety appearance of matt anodized aluminum. It is very easy to clean and insensitive to weather influences and mechanical effects.

## Unrivalled surface effect with variety of designs

- Deep matt, velvety surface, free from gloss reflections
- Excellent coating characteristics
- Resembles anodized surfaces on steel, cast parts and aluminum alloys

## Safety and processing

- Optimized curing conditions from 180 °C/20 min.
- High recycling stability (IGP Premium-Bonding)
- Simple and reliable application

## Ecology

- Ingredients in accordance with Regulation (EU) No. 1907/2006 (REACH)
- Powder coating suitable for interior environments in accordance with AgBB and M1
- Environmental Product Declaration (EPD) in accordance with ISO 14025 and EN 15804 + A1

## Economy

- High material utilization degree due to high recyclability
- Stable surface
- Easy facade cleaning

## Two product qualities for perfect results

- IGP-DURA<sup>®</sup> *xal* 4201 Type L**
- Extremely weather-resistant quality
  - Outstanding shade and gloss stability
  - Approvals and examinations for extremely weather-resistant systems: Qualicoat approval class 2, No. P-1536, KAT.1 AAMA 2604-13, examination report 15314-4
  - Long-term warranties on request
  - Effect and solid shades in the extremely weather-resistant color chart as well as special shades\*

## IGP-DURA<sup>®</sup> *xal* 4601 Type L

- Weather-proof quality
- Above-average resistance to chemicals
- Extended color pallet in effect and solid shades with a variety of additional RAL, NCS and special shades\*

## Liquid supplemental lacquer

As a wet coating alternative to IGP-DURA<sup>®</sup> *xal* powder, the corresponding DOLD SPACELINE DURA<sup>®</sup> *xal* LIQUID product is available for stationary follow-up coating purposes (Manufacturer: DOLD AG, Wallisellen).

\* Customized special shades with pearl mica effect are available for order quantities greater than 400 kg (approx. 4000 m<sup>2</sup>).



Town hall Volketswil, Volketswil

VorZUG, Baar

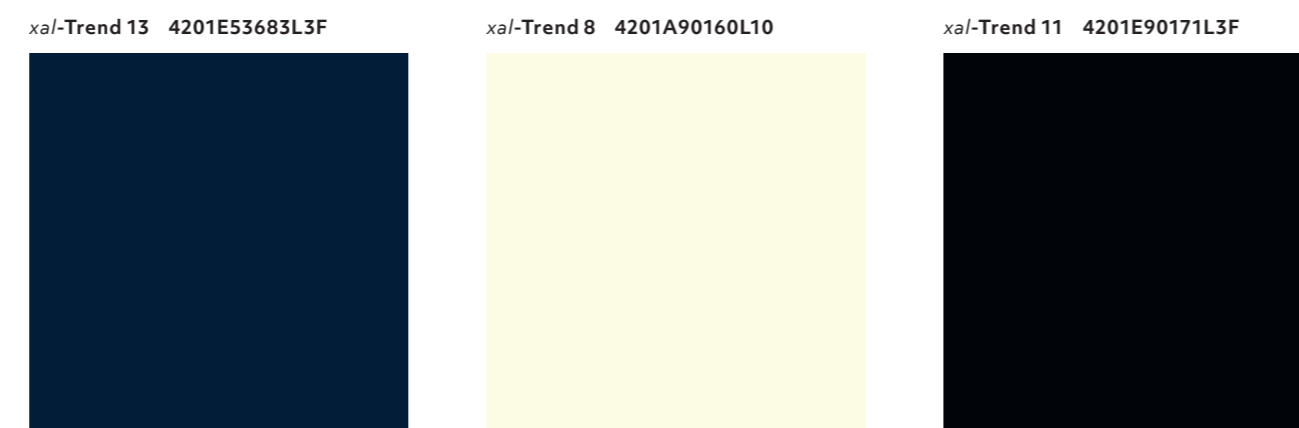
Limmathof, Baden



## CLASSIC IGP-DURA®*xal* 4201



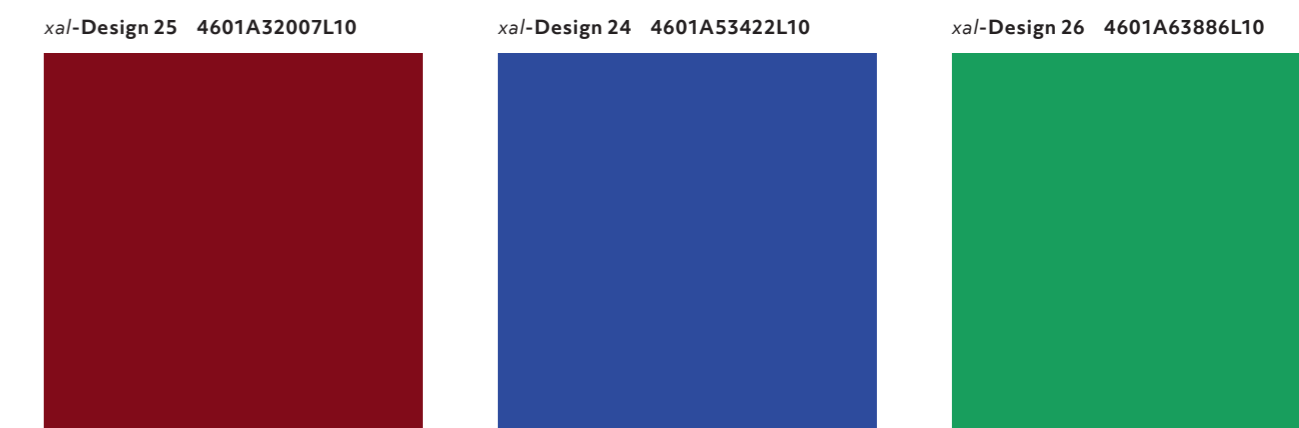
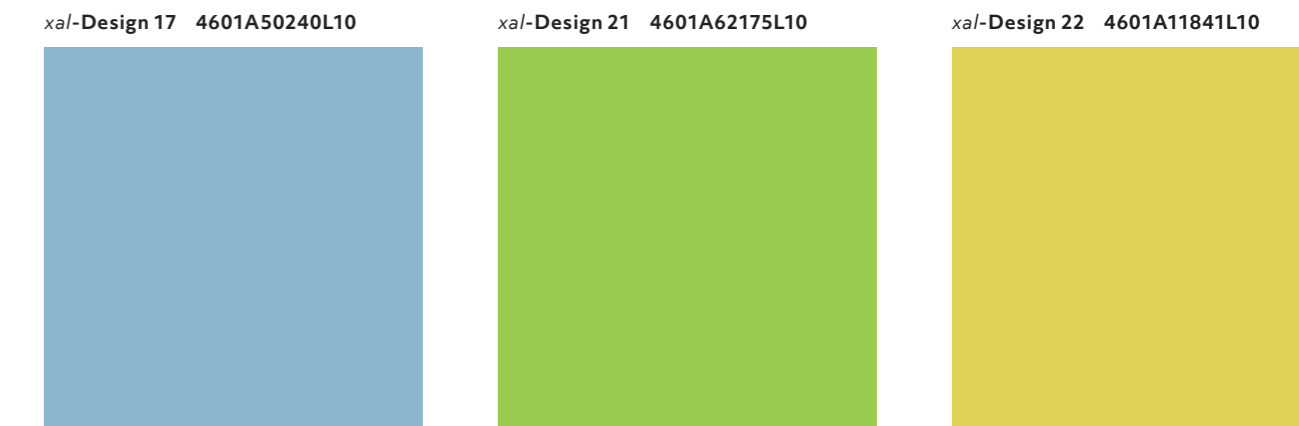
## TREND IGP-DURA®*xal* 4201



## STYLE IGP-DURA®*xal* 4201



## DESIGN IGP-DURA®*xal* 4601



**Non-binding color samples:**  
Production-related and/or application-related deviations are possible.  
Please refer to our "Technical Data Sheets".