

8L-XXX-A016 SERIES (DS 7XXI)

Powder-coatings with special surface



Information:

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CHNICAL TOOLS aboratory Tests and Technical Documentation

MRK-012-0070-R3

Powder-coating with special surface



1. Product features

The main feature of the *8L-XXX-A016* (previous code: *DS 7XXI*) series is their textured anti-skid surface: their special composition, indeed, allows a surface that feels very rough but at the same time soft when it is touched.

This peculiar characteristic also affords a typical aspect to the color and to the way these powders reflect the light.



Picture 1: Anti-skid floor coated with 8G-XXX-A016 powder decorated with heat-transfer technology.

2. Technical information

- T<u>echnical data</u>

Powder type	Polyurethane
Class resistence	Class 1 or Class 2
Yield (in surface/mass)	13,1 m²/Kg
Specific weight	1,27 ± 0,03 g/cm ³

- Application and curing cycle

Available for corona charging.

Curing time and temperature: 20 minutes at 200°C – 392°F (metal temperature).

Reccomended thickness: 60 microns – yield 13.1 m²/Kg,

80 microns – yield 9.8 m²/Kg.

- Mechanical properties

Test	Standard reference	Result
Buchholz hardness	ISO 2815	ok
Cross-cut	ISO 2409	no loss of adhesion; ok
Bending	ISO 1519	no loss of adhesion; ok
Salt spray	ISO 9227	corrosion <4 mm; ok

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3. Variants and special formulations

Variants are available for the *no-skid* series, and some features of this powder can be modified on demand of the customer. It is possible to produce it:

- Class 2 (code: 9L-XXX-A072 or DS-07XXIS);
- Antimicrobial (code: 8L-XXX-A017 or DS-07XXIF);
- Matching RAL references.

4. Sublimable version

With the heat-transfer technology, it is possible to make an already special surface unique.



Picture 2: Sample panel coated with DS 725I (on the left) and DS 725I with heat-transfer film 2117/03 (on the right).

5. Possible usage and applications

This series finely suits the coating of handles, shelves and technical furniture, floor tiles (low duty) and all the surfaces where the particular antiskid feature can result in an add value.





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6. Abrasion test

Decoral Lab use the abrasion test to evaluate the resistance to clomping and abrasion of this series of powder.

In this test the coated surface of a sample panel is rubbed with sand paper (CAMI grit designation: 600 - FEPA grit designation: P1200 – average particle diameter: $16 \mu m$), over which is applied a weigh of 1 kg, for 100 consecutive passes.

The test is performed over two different sample panels: the first one is coated with a standard powder (DS 803), and the other one is coated with a No-skid powder (DS 703I); in this way is easier to evaluate comparatively the increase of resistance to abrasion that occurs with No-skid powders.



Picture 3: Abrasion test on two panels coated with a standard powder (on the left) and a No-skid powder (on the right).

<u>Weight: 1 kg</u> <u>Grit designation of sand paper: CAMI 600 – FEPA P1200</u> <u>Number of consecutive passes: 100</u>

As shown in picture above, the surface of sample panel coated with No-skid powder is only slightly damaged by abrasion of 100 passes of sand paper; the same conditions over a sample panel coated with a standard powder lead to severe damage of surface.

7. Resistance and no-skid certification

External certification authority has tested no-skid powders, by performing the determination of resistance to surface abrasion test, the determination of chemical resistance test and the determination of the antislip proprieties test. All the results of this test, conducted in accordance with ISO standard using DS-0725IS+2505/01, are shown into the following certifications.

Powder-coating with special surface





TEST LABORATORY

Test Report No. 5043/16 Sassuolo, 25/07/16

CENTRO DI RICERCA E SPERIMENTAZIONE PER L'INDUSTRIA CERAMICA

Requested by:	DECORAL SYSTEM S.r.I. Viale del Lavoro, 5 - 37040 ARCOLE (VR)		
For the sample:	Painted metal sheets marked "DS 0725 IS + 2505/01":		
On (date): 29/06/16 Date of receipt in laboratory (sample delivered by the client): 30/06/16		y the client): 30/06/16	
Test date		From: 05/07/16	To: 05/07/16

EN ISO 10545-7 – Determination of resistance to surface abrasion

ABRASION STAGE:

PEI, failure visible at (rev.):

Resistance class (ISO 10545-14) Test solutions Test Test Test Test Test Stains specimen 2 specimen 3 specimen 4 specimen 5 specimen 1 Chrome green in light oil _____ ----------_____ ----lodine (alcoholic ____ solution 13g/l) Olive oil (def. Olive Oil Agreement - 1979)

CLASSIFICATION:

Abrasion class:

3

750

Stain resistance class - References

Resistance class 1: Stain not removed.

Resistance class 1: Stain not removed. Resistance class 2: Stain removed by dipping in a suitable solvent for 24 hours. Resistance class 3: Stain removed by mechanical cleaning and strong cleansing agent. Resistance class 4: Stain removed by manual cleaning with weak cleansing agent . Resistance class 5: Stain removed by means of hot current water for 5 min.

Eng. Giordana Caran Technical approval

Prof. Maria Chiara Bignozzi Director

The results reported relate only to the samples tested. No responsibility is taken for the accuracy of the sampling unless it is done under our own supervision. The reproduction of this test report is only authorized in the form of a complete photographic facisimile. Our written approval is necessary for any partial reproduction. This test report consists of 1 pages, this cover included.

Via Martelli 26 40138 Bologna – Italy Tel. +39 051 534015 Fax +39 051 530085 Part. IVA 0094778-0375 centro.ceramico@centroceramico.it www.centroceramico.it

Viale Valle d'Aosta 1 41049 Sassuolo (MO) – Italy Tel. +39 0536 802154 Fax +39 0536 800662

Powder-coating with special surface





CENTRO DI RICERCA E SPERIMENTAZIONE PER L'INDUSTRIA CERAMICA TEST LABORATORY

Test Report No. <u>5044/16</u> Sassuolo, 25/07/16

Requested by:	DECORAL SYSTEM S.r.I. Viale del Lavoro, 5 - 37040 ARCOLE (VR)			
For the sample:	Painted metal sheets marked "DS 0725 IS + 2505/01":			
On (date): 29/06/16 Date of receipt in laboratory (sample delivered by the client): 30/06/16		30/06/16		
Test date		From: 06/07/16	To:	11/07/16

EN ISO 10545-13 § 8 - Determination of chemical resistance

	Class of resistance				
Test solutions	Test specimen 1	Test specimen 2	Test specimen 3	Test specimen 4	Test specimen 5
Household Chemicals:					
Ammonium Chloride 100g/l	A(V)	A(V)	A(V)	A(V)	A(V)
Swimming pool salts: Sodium hypochlorite 20mg/l	A(V)	A(V)	A(V)	A(V)	A(V)
Acids:					
Hydrochloric acid 3% V/V	LA(V)	LA(V)	LA(V)	LA(V)	LA(V)
Citric acid 100g/I	LA(V)	LA(V)	LA(V)	LA(V)	LA(V)
Alkali:					
Potassium Hydroxide 30g/l	LB(V)	LB(V)	LB(V)	LB(V)	LB(V)
Acids:					
Hydrochloric acid 18%V/V	HB(V)	HB(V)	HB(V)	HB(V)	HB(V)
Lactic acid 5% V/V	HA(V)	HA(V)	HA(V)	HA(V)	HA(V)
Alkali:					
Potassium Hydroxide 100g/l	HB(V)	HB(V)	HB(V)	HB(V)	HB(V)

CLASSIFICATION (Pencil test and/or reflexion test are not applicable:)		
L: Low concentration chemicals H: High concentration chemicals	Class A(V): no visible effect Class B(V): definitive change in appearance Class C(V): partial or complete loss of the surface	
	(Description	

Eng. Giordana Carani Technical approx

Prof. Maria Chiara B Director

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Powder-coating with special surface





CENTRO DI RICERCA E SPERIMENTAZIONE PER L'INDUSTRIA CERAMICA

TEST LABORATORY

Test Report No. <u>5045/16</u> Sassuolo, 25/07/16

13,3°

R10

Requested by:	DECORAL SYSTEM S.r.I. Viale del Lavoro, 5 - 37040 ARCOLE (VR)		
For the sample:	Painted metal sheets marked "DS 0725 IS + 2505/01":		
On (date): 29	On (date): 29/06/16 Date of receipt in laboratory (sample delivered by the client): 30/06/16		30/06/16
Test date	From: 01/07/16 To: 01/07/16		

DIN 51130 (06/2004) – Determination of the anti – slip properties Workrooms and fields of activities with raised slip danger, walking method – ramp test

Surface characteristics

х	Smooth
	Profiled
	Structured
	Rough

RESULTS

Average total acceptance angle: Movement area (cm³/dm²):

CLASSIFICATION (BGR 181 - 10/2003)

Group of anti - slip properties:

Movement area evaluation group:

Eng. Giordana, Carani Technical appre



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- MRK-005-0021R1



- MRK-005-0020R2

Marchi di qualità registrati di Decoral System:



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