

BMG

Anti-Corrosion Method

KTL FLOW CHART



CYCLE OF CATHAPHORESIS TREATMENT

1. Spray Degreasing 50-55 °C
2. Dipping Degreasing 50-55 °C
3. Rinsing
4. Activation
5. Dipping Zinc Phosphatation 48-52 °C (XXX)
 6. Rinsing
 7. Passivation
 8. DI Rinsing
9. E-COAT 28-32 °C (KABS)
 10. Ultra filtrate 1
 11. Ultra filtrate 2
 12. Storage tank
13. Oven 1-2 (20 minutes 160-170 °C)



FILM PROPERTIES

Property	Test Method	Performance
Film Thickness	---	12 – 30+ µm
Gloss - 60 Degree	ISO 2813	> 55
Pencil Hardness	ASTM D3363-92A	5H+
Persoz Hardness	ISO 1522	> 250
Direct Impact	ASTM D2794	> 36 kg.cm
Stone Chip	ASTM D3170	min. 5B
Adhesion	DIN EN ISO 2409	Gt 0
Humidity	DIN EN ISO 6270-2	Blister degree m0/g0, Rust degree Ri 0, cross cut max. Gt 2
Water Immersion	ISO 1521	No rust formation, Adhesion: Gt 0
Throwpower	4-BOX method	55-60 %

Cold Rolled Steel Lab panels were used with Zinc Phosphate pretreatment, average film thickness of e-coat: 20 µm , curing condition: 20 Minutes @ 150°C, EMT



CORROSION RESISTANCE

Substrate/Pretreatment		Lab. scale coated CRS panels are used for tests
Salt spray test DIN EN ISO 9227	100 hours	Blister degree m0/g0, Rust degree Ri 0, Corrosion creep max. 1 mm, Cross cut max. Gt 1
	250 hours	
	500 hours	
Corrosion Cycle Test	1000 hours	Blister degree m0/g0, Rust degree Ri 0, Corrosion creep max. 3 mm, Cross cut max. Gt 2
	VDA 621-415 B	6 cycle-6 weeks; Adhesion: Gt0 No rust propagation on the panel Max. 2 mm
ECC-1 / D17 2028	42 cycle	No rust propagation on the panel

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PAINT APPLICATION IN CASE OF ACCIDENT

Paint application in a damaged vehicle is as follows;

Metal surfaces are sanded with 120 cm diameter sandpaper. Surface cleaning with thinner should be done.

The parts outside the damaged area should be covered.

80 micron epoxy (4/1 thinner) primer should be applied to the sanded surface with 1.3 diameter gun from top.

The surface should be cured at 80 ° C for 30 minutes.

40 micron acrylic based top coat application is applied with 1.3 diameter gun.

The top coat should be cured at 80 ° C for 30 minutes.

The operations to be done under the vehicle to the damaged areas are as follows.

Surface cleaning with thinner should be done.

80 micron epoxy (4/1 thinner) primer should be applied to the cleaned area.

The surface should be cured at 80 ° C for 30 minutes.

500 micron EFCOAT AB 220 water based impact protection should be applied.

100 micron EFCOAT WB 463 under vehicle anti-corrosion wax should be applied.



METAL MATERIAL USED

No	Part Number / Parça Numarası	Dimension/ Kesit	Description / Parça Tanımı	Material / Malzeme
1	5301P80001	20x30x1,5	Square Profile / Kutu Profil	S355MC
2	5301P80002	30x30x1,5	Square Profile / Kutu Profil	S355MC
3	5301P80003	20x40x1,5	Square Profile / Kutu Profil	S355MC
4	5301P80004	30x40x1,5	Square Profile / Kutu Profil	S355MC
5	5301P80005	40x40x2	Square Profile / Kutu Profil	S460MC
6	5301P80006	Special profile / Özel Profil	D Profile / D Profil	ST-44/S315MC
7	5301P80007	40x60x3	Square Profile / Kutu Profil	S355MC
8	5301P80008	40x80x3	Square Profile / Kutu Profil	S420MC
9	5301P80009	40x80x2	Square Profile / Kutu Profil	S420MC
10	5301P80010	40x60x2	Square Profile / Kutu Profil	S355MC
11	5301P80011	60x60x3	Square Profile / Kutu Profil	S355MC
12	5301P80012	60x80x2	Square Profile / Kutu Profil	S355MC
13	5301P80013	60x80x3	Square Profile / Kutu Profil	S460MC
14	5301P80014	80x80x3	Square Profile / Kutu Profil	S420MC
15	5301P80015	40x100x3	Square Profile / Kutu Profil	S420MC
16	5301P80016	40x50x2	Square Profile / Kutu Profil	S420MC
17	5301P80017	80x100x3	Square Profile / Kutu Profil	S420MC
18	5301P80018	60x120x3	Square Profile / Kutu Profil	S355MC
19	5301P80019	60x100x3	Square Profile / Kutu Profil	S420MC
20	5301P80020	45x45x3	Square Profile / Kutu Profil	S460MC
21	5301P80021	73x73x3	Square Profile / Kutu Profil	S460MC
22	5301P80022	50x50x2	Square Profile / Kutu Profil	S355MC
23	5301P80023	50x50x4	Square Profile / Kutu Profil	S355MC
24	5301P80024	20x20x1,5	Square Profile / Kutu Profil	S355MC
25	5301P80027	50x30x1,5	Square Profile / Kutu Profil	S355MC

No	Thickness (mm) / Kalınlık (mm)	Material / Malzeme
1	1	S215JR
2	1,2	S215JR
3	1,5	St-44
4	2	S355 MC
5	2,5	S460 MC
6	3	S460 MC
7	4	S420 MC
8	5	S460 MC
9	6	S355 MC
10	7	S355 MC
11	8	S355 MC
12	9	S355 MC
13	10	S355 MC
14	11	S355 MC
15	12	S355 MC

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TECHNICAL DATA SHEET

LVC EPOXY PRIMER (S2Z 7B1/4)



DEFINITION

LVC Epoxy Primer is a two component epoxy based primer with a high LVC Epoxy primer gives excellent results especially on galvanized and priming of automotive epoxies. The amount of volatile organic solvent content is a primer coat of automotive part systems. compound (VOC) is below the legal limit value for primer. It has higher coverage area compared with conventional epoxy based primers.

APPLICATION AREAS

TECHNICAL PROPERTIES

Code	S2Z 7B1/4
Color	Light Gray
Viscosity	70 - 75 KU/20°C
Cons	Max
Color Del	01-C, DWP Metal Primer / Galvanized Panel (DIN EN ISO 2409)
Specific Gravity (20°C)	1.24 - 1.30 g/cm ³ (min substrate)
Solid Content by Weight	60% (min substrate)
Solid Content by Volume	40% (min substrate)
Theoretical VOC	Max 65 g/l (Application Viscosity-Air Spray)
Application Method	Air / Aerosol Spray, Brush
Hardware Coat	81/42/25
Min Ratio by Weight	4:4 parts S2Z 7B1/4 / 1 parts 81/42/25
Min Ratio by Volume	4 parts S2Z 7B1/4 / 1 parts 81/42/25
Application Thickness	80-300 µm
Application Viscosity	19-21 seconds (DIN ISO 2409) / 19-21 sec (min substrate Viscosity) (Aerosol Spray, Brush)
Min. film	20µm
Drying Time	20°C/ 16 hours
Dry Film Thickness	20°C/ 25-30 minutes
Theoretical Coverage	20°C/ 16 hours
Storage Period	4.4 m ² /kg (80 micron)

At Temperature minimum +5 °C, Max. Temperature +35 °C +35 °C, Relative Humidity <85%
Max. Temperature must be below 50 °C.
For the application, application, primer application from the technical service team.
To provide a more temperature in closed package.

Avusturya'da bulunan en yakın temsilci, bu bilgi için lütfen bizimle iletişime geçin.



TECHNICAL DATA SHEET

BS12 SERIES

Product Description

Color

Material Properties

Delivery Viscosity

Density at Delivery Viscosity

Solid Content at Delivery Viscosity/weight

Theoretical Coverage

Application Recommendations

Application Method

Application Viscosity

Mixing Ratio

Pot Life (20°C)

Application Conditions

Drying Conditions

Substrate

Surface Preparation

Safety and Storage Information

Storage Time

Warnings

2K ACRYLIC TOPCOAT

Two pack, high gloss enamel topcoat based on acrylic polyol and aliphatic polyisocyanate resin. It has high physical and chemical resistance, excellent film properties and high outdoor durability.

White. Every shade can be produced upon request.

80-100 s / DIN CUP 4 / 20°C

1.00-1.30 gr / cm³

% 55-70

At a dry film thickness of 30-90 microns ~ 5-10 m²/kg. The practical coverage depends on the factors, such as shape of the construction, roughness of substrate, method and conditions of application.

Conventional spray gun

16-18 s / DIN CUP 4 / 23°C

Base (BS12 SERIES) : 2 part (by volume)

Hardener (89322007) : 1 part (by volume)

Thinner (T83304) : Thinner if necessary

6 hours

20°C - 30°C, %50-67/0 RH

80°C / 30 min (object temperature)

Steel or on a primer suggested by ANK

The surface must be removed from any dust, grease, dirt etc.

Minimum 12 months in unbroken original package at 5°C-40°C
See label for precautions. The user of this product is required to comply with the national statutory regulations or health, safety during transportation and at work and waste disposal. See MSDS for detailed information.

TECHNICAL DATA SHEET



Technical Data Sheet
Electron LB-800 Gray



Product description

Electron LB-800 Gray is a Cathodic Electro-Deposition paint from Kansai Paints primarily used for painting Automotive and Automotive parts, as a corrosion resistant coating without heavy metals namely lead and chrome. It has superior bath stability even under low turnover conditions of commercial vehicle and parts manufacturers.

- Excellent corrosion resistance and chemical resistance
- Wide window of operation, robust operation
- Smooth appearance

Processing of material

Substrate Cold rolled Steel, Galvanized Steel, Aluminum

Pre-Treatment Zinc Phosphate

Product Details

Color	F-1 Pigment Paste	F-2 Resin Emulsion
Gray	250g/100	milly white
Viscosity (20°C, mPa.s)	58± 2	5-80
Solid (weight %)	1.5 g/cm ³	34± 2
Specific gravity	1.0	1.05
Mix ratio (by weight)	1.0	4.0± 0.5
Shelf life (5-25°C)	6 month	6 month

Bath Make up

Material	Quantity	Remark
F-2 Resin Emulsion	417	Agitate well before use.
F-1 Pigment Paste	101	Should be added under agitation.
D1 Water	480	Should be added under agitation.
Additive A	2	Should be added under agitation.

Bath parameters

Solid (weight %)	17-21 %
Ash content (%)	15-22 %
pH value (25°C)	5.5± 4
ACID MEQ	26-32 meq/l (20ml water)
Conductivity (25°C)	1300-1800 μ scm

Application Data

Coating time	180 s
Bath temperature	28-32 °C
Voltage	100-350V
Curing Temperature	155°C - 220°C
(Metal temperature)	170°C -20 minute (STD)
Specific gravity of Dried film	1.40±0.05 g/cm ³



Film Properties

Substrate	Cold rolled steel - Zinc Phosphate
Film thickness	20±2 μ m
60° specular gloss	70%
Adhesion	ISO 2409 G1.0
Impact (1/2" dia. 500 grams)	ISO 6272 500mc
Stone-Chip resistance	1-1.5
Hardness KONIG	ISO 1522 125-130sec

Corrosion protection

Humidity Test	ISO 6270	1000h
Surface blistering	ISO 1628-2	0/50
Surface corrosion	ISO 4628-3	0
Salt Spray Test	ISO 9227	1000h
Surface blistering	ISO 1628-2	0/50
Surface corrosion	ISO 4628-3	0
Corrosion mass cut	ISO 12944-6	1.5mpa

List of corrective additives

Product name	Description	Purpose
Additive A	20% Acetic acid	For MEQ adjustment
Additive B	50% Butyl glycol	For Film build increase
Additive X	Biocide	For sterilization of E-Coat bath and rinse water
Additive Z	Resin solution	For pH Adjustment
	How to use	
Additive A	To increase MEQ value 1 point.	
Additive B	Need to add 0.8kg of Additive A to 1000kg of Bath paint.	
Additive X	To increase Film build 1 μ m.	
Additive Z	Need to add 2kg of Additive B to 1000kg of Bath paint.	
	If Biocida becomes over 10 ³	
	Add 1kg of Additive X to 1000kg of Bath paint and relevant tanks.	
	If pH becomes to low.	
	Add 1kg of Additive Z to 1000kg of Bath paint.	

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Sample Photos of Fully Dipped Cathaphoresis Process that is Applied to the Whole Body of the Vehicle Against corrosion



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