

ELARESIN[®]

Powder Coating Resins



www.elaresin.com

ELARESIN[®]

Powder Coating Resins

Revision-02, 2022.

Copyright © 2011-Present ELA KİMYEVİ MADDELER A.Ş. All rights reserved.

INDEX

About Us.....6

Product Code Nomenclature.....7

ELARESIN® DP Series.....8-9

ELARESIN® DT Series.....10

ELARESIN® IE Series.....11

Epoxy Resins.....11

Glossary.....12



WE INTRODUCE OUR NEW POLYESTER RESINS
WITH LOW CURING TEMPERATURE

ELARESIN® DP2833 | ELARESIN® IE61-LC

ELARESIN®
Powder Coating Resins

ELARESIN® DP2833

- Curable with β -HAA agent
- Curable at 160° C
- 95/5 ratio
- Overbake stable
- Tg: 60

ELARESIN® IE61-LC

- Suitable for Hybrid coatings
- Curable at 160° C
- 60/40 ratio
- Tribo-chargeable
- Tg: 58



For more details
www.elaresin.com

ABOUT US

ELA KİMYEVİ MADDELER, founded in Tuzla in 2010, inspired by the experience of a family with 60 years of industry background, has made a strong entry with its products developed for the plastics industry. ELA, which has a production capacity of 48 thousand tons in its plasticizer unit, is one of the leading companies in its market and one of the top 3 companies in its field in export sales ranking.

Our company, which carries out the trial production of Powder Coating Polyester Resin in its Tuzla facility in 2016, has also entered into the coating market with its manufacturer identity with the brand **ELARESIN**. In the same years, the second facility with an area of 16 thousand square meters, which was started to be built in Dilovası, was completed in 2021. Together with this investment, annual polyester resin production capacity has been increased to 32 thousand tons. With the completion of the 2nd phase unit, it is aimed to reach a total production capacity of 60 thousand tons in the medium-term.

ELA, has REACH certificates in all its products, also implements ISO 9001 Quality and OHSAS 18001 Occupational Health and Safety management systems in the facility. Our company, which continues to develop new solutions for its partners by developing its product portfolio for more than 10 years with its qualified team, continues to grow with new investments within the framework of this vision.

ELARESIN, with its specialized technical staff in the field, offers your need for resin to be used in powder coating in superior standards. Our resins provide high performance properties such as flexibility, UV-resistance, chemical resistance, high mechanical strength, anti-corrosion and corrosion resistance. Our products provide solutions for various demands as below:

- Outdoor resins curable with TGIC and HAA
- Indoor resins curable with EPOXY
- Supardurable resins, Architectural resins
- Low Bake, High Reactivity Resins
- Resins for Heat-Sensitive Materials
- Resins curable with TGIC and HAA for Low Gloss applications
- Resins for High Chemical Resistance.



*Compliance with REACH, ISO 9001:2015, OHSAS 18001: 2007

PRODUCT CODE NOMENCLATURE

1. Character: Application Type (D: Outdoor, I: Indoor)

2. Character: Curing Agent (T: TGIC, P: β -HAA, E: EPOXY)

3-4-5-6. Characters: Particular Numbers

Last Character: Specialty (LC: Low Cure, MC: Medium Cure, P: Rough, A: Architectural etc.)

Curing Type	Curing Temperature	Curing Time
L - Low	190C - 200 °C	10 min
M - Medium	170C -180°C	10 min
H - High	160°C	10 min
VH - Very High	$\leq 150^{\circ}\text{C}$	10 - 30 min



ELARESIN® DP SERIES

Saturated Polyester Resins (97/3) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP02	97/3	▪	▪		20-25	5400-8200	61	180/10	Dry blend with ELARESIN DP72 or ELARESIN DP82 to obtain matt surface.
DP03	97/3	▪	▪	▪	20-25	5400-8200	61	180/10	Dry blend with ELARESIN DP73 or ELARESIN DP83 to obtain matt surface. Tribochargeable version of ELARESIN DP02.

Saturated Polyester Resins (96,5/3,5) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP12	96,5/3,5	▪	▪		21-25	5600-8100	62	180/10	Excellent flow, overbake and gas oven resistance. High viscosity.
DP13	96,5/3,5	▪	▪	▪	21-25	5600-8100	62	180/10	Tribochargeable version of ELARESIN DP12.

Saturated Polyester Resins (95/5) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP22	95/5	▪	▪		30-36	2500-3500	60	180/10	Excellent weathering & good flow. Overbake & Gas oven resistance.
DP23	95/5	▪	▪	▪	30-36	2500-3500	60	180/10	Decorative and protective applications for outdoor weathering resistance. Tribochargeable version of ELARESIN DP22.
DP23-C	95/5	▪	▪		30-36	2500-3500	60	180/10	Corona version of DP23. Overbake resistance.
DP2723	95/5	▪	▪	▪	32-38	3500-5000	60	180/10	Higher viscosity. Tribochargeable.
DP2833	95/5	▪	▪	▪	35-40	3000-4500	60	170/10 160/12	Low temperature curable resin for industrial application. Non-blooming.

ELARESIN® DP SERIES

Saturated Polyester Resins (95/5) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP2903	95/5	■	■	■	32-38	2000-3000	56	180/10	Excellent flow. High glossy. Low viscosity.
DP92-A	95/5	■	■		33-38	2000-4000	56	180/10	Corona version of ELARESIN DP93-A.
DP93-A	95/5	■	■	■	33-38	2000-4000	56	180/10	Advanced architectural resin. Excellent flow. Degassing properties up to 160 microns. Overbake and gas oven resistance.

Saturated Polyester Resins (93/7) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP72	93/7	■	■		49-54	3000-5500	58	180/10	Can be blended with ELARESIN DP02 or ELARESIN DP82 to obtain matt surface.
DP73	93/7	■	■	■	49-54	3000-5500	58	180/10	Medium cure 93/7 β -HAA Polyester. Can be blended with ELARESIN DP83 or ELARESIN DP03 to obtain matt surface.

Saturated Polyester Resins (90/10) curable with β -HAA Agent

Product Code	Ratio	Gas Oven Stable	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DP82	90/10	■	■		79-86	1000-2500	61	180/10	Medium cure polyester resin which can be used in 90/10 (Polyester / β -HAA). Can be blended with ELARESIN DP02 or ELARESIN DP72 to obtain matt surface.
DP83	90/10	■	■	■	79-86	1000-2500	61	180/10	Tribochargeable version of ELARESIN DP82.



ELARESIN® DT SERIES

Saturated Polyester Resins 90/10 curable with TGIC

Product Code	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DT12	90/10	▪		47-55	3000-5500	67	180/10	Can be blended with ELARESIN DT70 to obtain matt surface.
DT13	90/10	▪	▪	47-55	3000-5500	67	180/10	Decorative applications for exterior durability requirements. Can be blended with ELARESIN DT73 to obtain matt surface.

Saturated Polyester Resins 93/7 curable with TGIC

Product Code	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DT42	93/7	▪		30-36	4250-5500	67	200/10	Excellent mechanical durability. To obtain smooth&high glossy decorative coatings.
DT43	93/7	▪	▪	30-36	4250-5500	67	200/10	Tribochargeable version of DT42.
DT44P	93/7	▪		35-41	3000-4600	67	180/10	Corona version of DT45P.
DT45P	93/7	▪	▪	35-41	3000-4600	67	180/10	Especially designed for obtaining wrinkle surface. Medium curing temperature at 180/10.
DT4913	93/7	▪	▪	33-38	2500-3500	62	180/10	Low viscosity, high glossy, excellent flow.

Saturated Polyester Resins 96/4 curable with TGIC

Product Code	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
DT70	96/4	▪	▪	21-26	6000-8500	60	200/10	Can be blended with ELARESIN DT12 to obtain matt surface.
DT73	96/4	▪	▪	21-26	6000-8500	60	200/10	Dry blend with ELARESIN DT13 to obtain matt surface.

ELARESIN® IE SERIES

Saturated Polyester Resins 70/30 curable with Epoxy (Hybrid)

Product Code	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
IE72	70/30	▪		30-36	4000-5500	57	180/10	Medium reactive resin. Very good flow and mechanical properties.
IE73	70/30	▪	▪	30-36	4000-5500	57	180/10	Tribochargeabl version of ELARESIN IE72.
IE72-A	70/30	▪		30-36	4000-6000	58	180/10	Designed for excellent polymerization. Non-blooming, overbake.
IE73-A	70/30	▪	▪	30-36	4000-6000	58	180/10	Tribochargeable version of ELARESIN IE72-A.

Saturated Polyester Resins 60/40 curable with Epoxy (Hybrid)

Product Code	Ratio	Overbake Stable	Tribo	AV	Viscosity	Tg	Cure T°C/t(min)	Remarks
IE61-MC	60/40	▪	▪	66-72	2500-4000	58	180/10	Medium curing temperature. Non-blooming, high glossy, excellent durability, overbake.
IE61-LC	60/40	▪	▪	66-72	2500-3500	58	160/12 170/10	Low curing temperature. Non-blooming, high glossy, excellent durability, overbake.

EPOXY RESINS

Epoxy for powder coating

Product Code	EEW	Viscosity	Softening Point(°C)	Remarks
ELAPOXY® 2350	725-850	3500-7000	88-99	Used together with polyester resin to obtain coating with high mechanical properties and chemical resistance.
ELAPOXY® 2250	650-720	2000-3500	85-95	Used together with polyester resin to obtain coating with high mechanical properties and chemical resistance.

GLOSSARY

Acid Value (mg KOH/gr)	The amount of KOH necessary to neutralize the acid content in one gram of polyester.
Blooming	A hazy appearance on the surface of the coating by migration of low molecular weight material during low temperature cure or extended exposure to heat.
Epoxy Equivalent Weight (EEW)	The weight of resin containing one gram-equivalent of epoxy.
Glass Transition Temperature (T_g)	The characteristic temperature in °C of an amorphous polymer corresponding to the change from a solid to liquid state as measured by DSC.
Hydroxy Value (OH V)	The amount of KOH equivalent to the hydroxyl content of one gram of polyester.
Low Bake	A property of baking using temperatures in below 160°C
Matte	A coating appearance that reflects a minimal amount of light.
Ratio	Weight ratio between the polyester resin and the hardener.
Storage Stability	Ability of powder coatings to maintain free flow powder properties after being subjected to a specified storage condition.
Superdurable	A polyester resin that exhibits extended outdoor weathering characteristics, typically maintaining > 50 % gloss retention after 3 years (EU) and min. 30% gloss retention after 5 years (US) exposed in Florida.
Wrinkle	A unique, special effect characterized with ridge-like structures.

NOTES





ELARESIN®

Powder Coating Resins

CONTACT US

GEBKİM Organize Sanayi Bölgesi, Fatma Börü Cad., No:4, Dilovası, Kocaeli
P: +90 216 504 21 85 | www.elaresin.com