

## **DUNAPLASZT ELEKTRO/TRIBO EP HYBRID**

### **Powder coating materials**

#### **TECHNICAL DATA**

Composition: thermosetting powder coatings materials of epoxy-polyester base, containing noble colouring pigments, fillers, catalyst and others additives.

<u>Selection</u>	<u>No BTO</u>
ELEKTRO EP transparent	2430129910
ELEKTRO EP coloured	2430129910
TRIBO EP transparent	2430129910
TRIBO EP coloured	2430129910

Selection is formed according to requirements. We also undertake the development and production of colours matching RAL colours and submitted colour samples. Powder coating materials are produced in glossy, semi-gloss and mat, normal and relief-effect varieties, moreover concerning stoving times also in normal and accelerated types.

Field of application: the products are suitable for the coating of steel- and aluminium surfaces of the most diverse purposes. They can be successfully used for the coating of tubular garden- and other sitting furniture, autobus sitting frames, fencing units, office furniture, refrigerator boxes, washing machines and other household instruments, electrical switchboxes, air-conditioning equipment's, laboratory and medical instruments, parts of agricultural machinery, heating units etc. Applied onto properly prepared or pre-treated surfaces, after baking they will give hard and flexible coatings of good adhesion, with high impact- and abrasion resistance.

Coatings thereof are permanently resistant to sunlight, with a slight tendency to yellowing and chalking, however, as they also contain polyester binding material, they are subjected only to minor changes from the effect of UV radiation in comparison to epoxy-amine systems. For this reason their application for outdoor use is not recommended only in those cases, when in the course of employment light- and colour-fastness are the primary requirements.

Typical properties:	Glossy	semi-gloss	mat
Appearance	White or coloured powders		
Sieve residue (on 3600 mesh sieve with 0,102 mm apertures) (MSZ810/3:1980), %, max	3		
Gel time, 180 °C, minutes	3-5		
Lower explosion limit, g/m <sup>3</sup> , about	50		
Stoving time 180 °C, min., max	20		
Ignition temperature, °C, about	400		
Appearance of coating	Gloss	semi-gloss	mat
	Grain-free, of adequate colour		
Flexibility, Erichsen (MSZ 9640/6:1987), mm. min.	7	7	5
Flexibility by bending, MSZ 9640/5:1984) mm. max.	3	3	3
Impact strength (MSZ 9640/9:1980), cm (1000g)	60	50	40
Water-resistance, (MSZ 9640/11:1983), 20 °C	permanently water-resistant		
<i>Chemical resistance, (MSZ 9640/11:1983) 20 °C, immersed for 48 hours</i>			
3% hydrochloric acid solution	Coating is unchanged		
10% hydrochloric acid solution	Coating is unchanged		
3% nitric acid solution	Coating is unchanged		
3% lactic acid solution	Coating is unchanged		
96% ethyl alcohol	Coating is unchanged		
Xylene	Coating is unchanged		
Red wine	Coating is unchanged		
Resistance to detergents, (MSZ 9640/13:1988), 80 °C, immersed for 48 hours, in 1% „TOMI Sztár” solution	Coating is unchanged		
Coverage (MSZ 9650/22:1989)	7-12 m <sup>2</sup> /kg (depending on layer thickness)		

**Coating properties refer to layer thickness of 60 µm**

**Storage stability:** stored according to the standard of MSZ 13910/9 60 months counted from the date of manufacture.

**Packing:** units of 16 kg, 20 kg, (depending on colour), in polyethylene bags and corrugated cardboard boxes.

## APPLICATION

Prior to application steel surfaces must be made free of oxidation and degreased, for possible pre-treatment phosphating can also be used. Aluminium surfaces must be perfectly degreased, the clean to metall surfaces obtained in this way may also chromated subsequently.

In highly corrosive environment, or, when a life-span of longer than 5 years in required for the coating, it is advised to have the metal surfaces prepared or roughened, repectively, by sandblasting.

Power coating material can be applied by powder-spaying (ELEKTRO) or by the so called „tribomatic” process (TRIBO). Above processes can well be mechanized or automatized, respectively.

Power coating materials can be applied to both, cold or preheated surface. On a cold surface about 60-80 µm, while on a surface preheated about 200µm thick coating can be formed. The preheating temperature depends on the thermal capacity and the articulation of the workpiece. Relationships between stoving times and stoving temperatures of the powder coating material applied are shown below:

Stoving temperature (°C)	150	160	170	180	180	200	210
Stoving time (minutes)	60	40	25	20	15	10	8

Relationships between stoving times and stoving temperatures of the accelerated powder coating material applied are the following:

Stoving temperature (°C)	150	160	170	180	190
Stoving time (minutes)	35	20	18	10	8

**Fire-protection measure:** ignition temperature of powder coating materials herein is around 400 °C. It should be noted, that these materials have a very fine distribution, consequently they form an explosive mixture with air in case, if the lower explosion limit, which is approximately 50 g/m<sup>3</sup>, is exceeded by the concentration of the powder. In order to prevent development of a dangerous level of powder concentration, application of the powder coating material must be carried out in a spraying booth designed with an exhaust system, with consideration to the lower explosion limit given above.

**Dangerous ingredients:** only silver-colours contains 1-6 % Aluminium pulver (EINECS: 231-072-3)

H statement (GHS / CLP) : -

P statement (GHS / CLP) :

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.

P284 – Wear respiratory protection.

P302 + P352 – IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P402 – Store in a dry place.

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The technical information's describing our products were compiled to the best of our knowledge. However, as the individual requirements and expectations considering all of our users can not be known, therefore you are kindly asked to regard the data given as a fan informative character, for which we do not assume any responsibility.