

DYNAPOL® Polyesters for Flexible Packaging



What is DYNAPOL ?

DYNAPOL is the trade name of saturated copolyesters from Evonik Degussa. Evonik Degussa is the world leading supplier of polyester resins for can coating, coil coating and hot-melt adhesive applications.

What are Flexpack Applications ?

DYNAPOL Polyesters are used as raw material for producing flexible packaging, for example:

- printing inks
- foil lacquers
- heat sealing lacquers
- hot laminating adhesives
- foil primers

What else can DYNAPOL do ?

DYNAPOL Polyesters are also used as additive in different flexpack formulations to improve properties, for example:

- promoting adhesion
- improving hardness
- increase flexibility
- better printability

Why Polyesters ?

- tailor made products with a wide range of properties (melting point, glass transition temperature, amorphous / crystalline / partially crystalline)
- good adhesion to different substrates (metal- and polymer-foils), even after extreme deformation
- excellent balance of hardness and flexibility
- good processability
- resistance to yellowing during processing
- completely free of taste
- environmentally friendly (low voc or 100% solid application as melt or powder)
- customer friendly (no estrogenic activity, low migration) PVC-free, BADGE-free
- suitable for food contact, most DYNAPOL grades are FDA approved

Grade	L 206	L208	L 210	L 411	L 490	L 651	L 658	L 952	LS 415	LS 615
Molecular mass g/mol	20000	20000	20000	16000	15000	17000	20000	18000	25000	4000
Glass transition temperature °C	67	65	63	47	40	40	40	70	15	-50
Viscosity number cm³/g	63	70	63	61	61	61	65	55	80	
Softening point (ring & ball) °C	152	146	150	126	130	148	121	150	110	liquid
Melt flow rate (MFR) g/10 min (°C)	17 190°C	30 190°C	22 190°C	66 190°C	88 190°C	85 190°C	151 190°C	26 190°C		
Hydroxyl number mg KOH/g	5	6	5	5	8	5	8	6	5	26
Acid number mg KOH/g	2	6	2	2	2	2	4	2	2	2
Solubility in Methylethylketone	+	+	+	+	+	+	+	+	+	
Solubility in Ethylacetate	+	+	+	+	+	-	+	+	+	
FDA 175.300 = + (+) = without alcohol contact	(+)	(+)	(+)	(+)	+	(+)	(+)	(+)	(+)	+