PEARLCOAT® 126K

Thermoplastic Polyurethane Elastomer

PEARLCOAT® 126K is a polyester based TPU, supplied in form of translucent, colourless pellets, combining high hardness with excellent low temperature flexibility and medium softening point.

Physical Property	Test Method	Typical Values *
Density @ 20ºC	DIN 53.479	1.20 g/cm^3
Shore Hardness	DIN 53.505	94 A
Tensile Strength	DIN 53.504	35 MPa
Modulus @ 100% Elongation	DIN 53.504	13 MPa
Modulus @ 300% Elongation	DIN 53.504	25 MPa
Elongation @ Break	DIN 53.504	420 %
Abrasion Loss	DIN 53.516	40 mm^3
Melting Range *(MFI=10)*	MQSA 111	155–165 ºC
Softening Range (film 300µm)	MQSA 70 (Köfler)	150-160 ºC
Tg. *(DSC, 10ºC / min.)*	DIN 51.007	-22 ºC

** These are typical values & should not be used for establishing specifications.*
*** Temperature at which MFI = 10 g/10 min @ 21.6 kg.*

APPLICATIONS

PEARLCOAT® 126K is used in melt coatings on textile substrates for conveyor belts, belting, etc. end uses, obtained by extrusion, calendering or sintering (in this last case the product is previously ground, so as to be in powder form).

PEARLCOAT® 126K is used for obtaining extruded films and fabric coatings.

WORKING INSTRUCTIONS

In accordance with our experience, the characteristics of the extruder that are suitable for processing **PEARLCOAT® 126K** are the following:

1. L/D ratio between 25:1 and 30:1
2. The extruder screw must have 3 zones and a compression ratio in between 2:1 and 3:1 (usually, the screws that are used for Polyethylene extrusion give good results).

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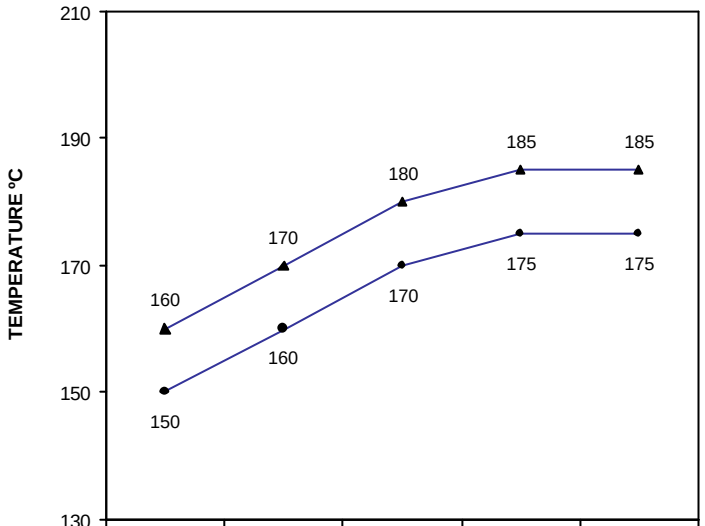
3. The extruder screw should have a continuous regulation device and a working power higher than for processing other plastics.
4. The speed of the extruder should be low (12 to 60 rpm, depending on its diameter), so as to avoid material degradation due to shearing.
5. The filters used should be disks with holes of 1.5 to 5 mm. (depending on the screw and the die), and screen packs (the nr. of meshes /cm^2 will depend on the end product that is processed), so as to create a pressure built-up.

For optimum results, previous drying of the product during 2 hours at 100 - 105º C is advisable, in a hot air circulatory, vacuum or desiccant-air dryer.

The suggested processing-temperature profiles for film extrusion (flat film) are depicted in the figure below.



	1	2	3	4	DIE
PROFILE 126K/1	150	160	170	175	175
PROFILE 126K/2	160	170	180	185	185

EXTRUDER & CONDITIONS

TYPE.- 30/25D (L/D=25:1), COOLING.- Air, SCREW.- 3:1, SPEED.- 50 rpm

BREAKER PLATE.- --. FILTER PACK.- --. THICKNESS DIE.- 0.2 mm. PRE-DRYING.- 1h @105 ºC

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CHARACTERISTICS OF THE FILM

Appearance	: Colourless, elastic, translucent	
Softening point	: 150-160ºC	*MQSA 70 B (Kofler)*
Dry cleaning resistance	: Excellent	

HEALTH AND SAFETY

A safety data sheet on **PEARLCOAT® 126K** is available, with all information related to safety.

The ingredients of **PEARLCOAT® 126K** comply with F.D.A. regulations, as described under 21 CFR, §177.2600 "Rubber Articles intended for Repeated Use" when **PEARLCOAT® 126 K** is used in coatings and adhesives which are in contact with food.

PACKAGING

PEARLCOAT® 126K is packaged in heat-sealed, moisture proof multi–layer bags of 25 Kg net weight made of PE/Aluminium/PE. Bags are shipped on pallets of 750 Kg. Additionally, PE-lined cardboard gaylords of 700 Kg net weight are available.

STORAGE

Material received from Merquinsa should be inspected to assure containers are not damaged during transportation before being stored prior to use. **PEARLCOAT® 126K** should be kept in a cool (15-25ºC) and dry environment prior to being processed. Standard practice of consuming resin on first-in first-out basis should be employed.

For more information, please feel free to contact us at **www.merquinsa.com**

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