

# PEARLCOAT® Activa D125K HC

Thermoplastic Polyurethane Elastomer

## PROVISIONAL TECHNICAL DATA SHEET

**PEARLCOAT® Activa D125K HC** is a polyester-based thermoplastic polyurethane supplied in form of black color pellets, with high level of conductivity. Featuring low gel content, it is ideally suited for extrusion and calendaring applications.

### TYPICAL PHYSICAL PROPERTIES

Physical Property	Test Method	Typical Values *
Density @ 20°C	ASTM D-792	1.20
Shore Hardness	ASTM D-2240	95 A
Tensile Strength	ASTM D-412	1744 psi
Modulus @ 100% Elongation	ASTM D-412	1453 psi
Modulus @ 300% Elongation	ASTM D-412	1671 psi
Elongation @ Break	ASTM D-412	500 %
Abrasion Loss	DIN 53.516	110 mm <sup>3</sup>
Melting Range (Köfler)	MQSA 70A	>356 °F
Tg. (DSC, 10°C / min.)	DIN 51.007	-31 °F
Surface Resistivity	MQSA 121	<1000 Ohm/sq

\* These are typical values & should not be used for establishing specifications.

### APPLICATIONS

**PEARLCOAT® Activa D125K HC** is ideal for extrusion and calendaring applications where high performance for industrial end-use is required.

### WORKING INSTRUCTIONS

In accordance with our experience, the characteristics of the extruder that are suitable for processing **PEARLCOAT® Activa D125K HC** 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 between 2:1 and 3:1 (usually, the screws that are used for Polyethylene extrusion give good results).
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  $\frac{1}{16}$  to  $\frac{3}{16}$  in. (depending on the screw and the die), and screen packs (the nr. of meshes /cm<sup>2</sup> will depend on the end product which is processed), so as to create a pressure built-up.

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For optimum results, previous drying of the product during 2 hours at 194-212° C is advisable, in a hot air circulatory, vacuum or desiccant-air dryer.

**HEALTH AND SAFETY**

A safety data sheet on **PEARLCOAT® Activa D125K HC** is available, with all information related to safety.

**PACKAGING**

**PEARLCOAT® Activa D125K HC** 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® Activa D125K HC** should be kept in a cool (60-75°F) 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](http://www.merquinsa.com)