

Technical Data Sheet

**REPSOL
YPF**

**ALCUDIA®
LD POLYETHYLENE**

CN-102

BLACK COMPOUND

APPLICATIONS	* COATING OF STEELPIPE BY EXTRUSION PROCESSES * EXTRUSION OF PIPE
SPECIAL CHARACTER.	* EXCELLENT MECHANICAL PROPERTIES * EASY PROCESSABILITY
MELT FLOW INDEX	0.25 g/10 min.
NOMINAL DENSITY	932 kg/m ³

INTRODUCTION

ALCUDIA^(R) compound CN-102 has been especially developed for coating of steelpipe using extrusion techniques. Furthermore it is designed for steelpipe coating to comply with the requirements of the DIN-30670 specification standard.

CN-102 is a high viscosity high molecular weight low density polyethylene black compound which offers easy processing combined with smooth glossy surface finish, excellent resistance to mechanical deformation and corrosion.

The combination of the antioxidant system and minimum of 2.2% well dispersed carbon black used in CN-102 provides the following features:

- excellent protection against thermal oxidation during processing.
- long term stability.
- excellent protection against outdoor weathering.

Because of the good mechanical properties and their characteristics, the polyethylene black compound ALCUDIA^(R) CN-102, is designed to produce pipe.

TYPICAL EXTRUSION CONDITIONS

The following temperature profile is suggested as a guide. Conditions will depend on the particular type of pipe and extrusion equipment used.

4 BARREL ZONES	CROSSHEAD 3 ZONES	MELT TEMPER.
(1) 180/185/190/195 °C (2) 200/210/220/230 °C	200/200/200 °C 230/230/240 °C	200 °C 230 °C

Filterpack: 1 x 60 + 1 x 100 mesh gauze

Screw L/D : 20/1

Compression ratio: 4:1

PROPERTIES

The Alcludia^(R) compound CN-102 has excellent mechanical properties and good resistance to internal pressure.

The following table shows typical values for its physical properties.

CONTACT WITH FOODSTUFFS

The ALCUDIA^(R) CN-102 may be used in contact with foodstuffs. For more information about specific country regulation, please, contact with our local representative or the Technical Service.

ALCUDIA^(R) CN-102 PROPERTIES

PROPERTIES	UNITS	TYPICAL VALUE	TEST METHODS
A) GENERAL - Melt Flow Index (190°C, 2.16 Kg) - Density at 23°C - Vicat softening point	g/10 min. kg/m ³ °C	0.25 932 92	ISO 1133 ISO 1183 ASTM D-1525 (Ve+A)
B) MECHANICAL - Tensile strength at break - Tensile strength at yield - Elongation at break	MPa MPa %	16 12 500	EN 638 EN 638 EN 638
C) OTHERS PROPERTIES - O.I.T. (210 °C) - Brittleness temperature	Min °C	>15 0/10 failures at -76	UNE EN 728 ASTM D-746

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This information is offered in good faith and meant only as a guide. The transformer or user will be, in each case, responsible for the processing conditions and the final use of the product. Freedom under patents, copyright and registered designs cannot be assumed.

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