CABELEC® CC6277

Polyethylene

Cabot Corporation

Message:

CABELEC CC6277 conductive concentrate is an electrically conductive concentrate made from a well-selected carbon black finely dispersed in polyethylene resins. Its electrical and mechanical properties are not dependent on atmospheric conditions however, they depend on the type and level of dilution of the resin used and the processing conditions.
Unlike standard conductive compounds, which have very limited dilution potential, CABELEC CC6277 conductive concentrate has the potential to be diluted with a high quantity of natural resin (see chart hereafter). This allows users of CABELEC CC6277 conductive concentrate to benefit from the versatility of this concentrate and from the enhanced physical properties due to higher levels of dilution resin.
Applications
CABELEC CC6277 conductive concentrate can reduce the hazards of electrostatic discharge in applications such as polypropylene based conductive slit tape and polypropylene Flexible Intermediate Bulk Containers (FIBCs).

General Information			
Additive	Carbon black		
Features	Conductivity		
Uses	Strap Container		
Agency Ratings	EC 1907/2006 (REACH)		
Forms	Particle		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	1.15	g/cm³	Internal method
Melt Mass-Flow Rate (MFR) (190°C/21.6 kg)	4.0	g/10 min	Internal method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			Internal method
Yield [1]	30.0	MPa	Internal method
Yield [2]	35.0	MPa	Internal method
Yield [3]	33.0	MPa	Internal method
Yield [4]	31.0	MPa	Internal method
Yield [5]	29.0	MPa	Internal method
Fracture [6]	42.0	MPa	Internal method
Fracture [7]	41.0	MPa	Internal method
Fracture [8]	34.0	MPa	Internal method
Fracture [9]	29.0	MPa	Internal method
Fracture [10]	27.0	MPa	Internal method
Tensile Strain			
Yield [11]	10	%	Internal method
Yield [12]	11	%	Internal method
Yield [13]	12	%	Internal method

Fracture [14]	1000	%	Internal method
Fracture [15]	920	%	Internal method
Fracture [16]	730	%	Internal method
Fracture [17]	110	%	Internal method
Fracture [18]	16	%	Internal method

Extrusion	Nominal Value	Unit
Drying Temperature	80	°C
Drying Time	4.0	hr
Cylinder Zone 1 Temp.	200 - 230	°C
Cylinder Zone 3 Temp.	200 - 230	°C
Cylinder Zone 5 Temp.	200 - 230	°C

NOTE	
1.	Addition level of CABELEC CC6277: 30%
2.	Addition level of CABELEC CC6277: 40%
3.	Addition level of CABELEC CC6277: 50%
4.	Addition level of CABELEC CC6277: 60%
5.	Addition level of CABELEC CC6277: 70%
6.	Addition level of CABELEC CC6277: 30%
7.	Addition level of CABELEC CC6277: 40%
8.	Addition level of CABELEC CC6277: 50%
9.	Addition level of CABELEC CC6277: 60%
10.	Addition level of CABELEC CC6277: 70%
11.	Addition level of CABELEC CC6277: 30%
12.	Addition level of CABELEC CC6277: 50%
13.	Addition level of CABELEC CC6277: 70%
14.	Addition level of CABELEC CC6277: 30%
15.	Addition level of CABELEC CC6277: 40%
16.	Addition level of CABELEC CC6277: 50%
17.	Addition level of CABELEC CC6277: 60%
18.	Addition level of CABELEC CC6277: 70%

Recommended distributors for this material

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