Alpha Calcit Application Leaflet

ALPHA TALC CT X FOR PLASTICS

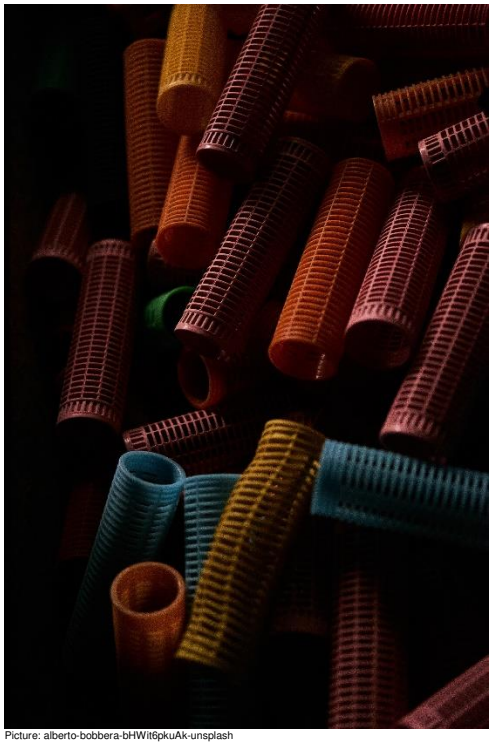
Product Properties:

ALPHA TALC CT X product family is a functional white filler with possibility to significantly modify several properties of polymers, plus cost reduction potential. Due to special milling procedures, the natural lamellarity of the talc is kept. The application of this material leads to modified polymers by maximisation of their mechanical performance. Addition of ***ALPHA TALC CT X*** helps to save cost through reduction of polymer amount in compounds. Application of this functional filler enhances important mechanical (rigidity, tensile strength, shrinkage etc.) and thermal properties of polymers (PP, PA). The talc addition plays an important role in various applications e.g. in automotive uses: instrument panels, consoles and grills with improvement of the impact resistance and lowering of the thermal expansion of the end-products.

UNIVERSAL PERFORMER FOR POLYMERS

Key Benefits at a glance:

- Broaden application spectrum in polymers
- Increasing of the mechanical stability
- Excellent rheological properties
- Exceptional rigidity of the compounds
- Reduction of the permeability
- Reduction of cost due to optimal properties
- Enhancement of thermal properties



Picture: alberto-bobbera-bHWit6pkuAk-unsplash

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Introduction:

Due to platy-shaped particles, ***ALPHA TALC CT X*** acts as functional filler in plastics with improvement of the useful properties of the filled material due to formation of bonding between filler particles and polymers. The addition of talc increases the tensile strength, reduces shrinkage and improves the dimensional stability and rigidity of compounds during employment.

Mineralogical composition:

Talc – 95 %; Magnesite /Dolomite / Chlorit < 3 %; accessory minerals – 2 %.

LOI_{1000} = 6,5 %

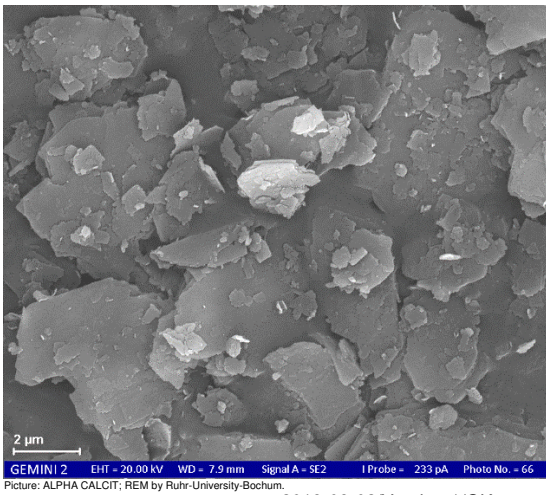
Physical Data:

	D_{50} [µm]	Ry	Top cut = Sieve residue [%]					BET [m^2/g]
			> 32 µm	> 40 µm	> 63 µm	> 71 µm	> 125 µm	
ALPHA TALC CT 8 X	2,8	90	< 0,1					20
ALPHA TALC CT 15 X	3,0	90		< 0,1				15
ALPHA TALC CT 30 X	6,0	90			< 0,1			10
ALPHA TALC CT 45 X	6,0	90				< 0,1		10
ALPHA TALC CT 60 X	6,5	90					< 0,1	5

Application examples:

Plastics compounds:
- Improvement of rigidity
- Increase of tensile strength
- Improvement of thermal properties
- Reduction of shrinkage

Plastic components:
- High impact resistance
- Development of stiffness
- Improvement of dimensional stability
- Enhanced reinforcing properties
- High filling degree of end-product



Picture: ALPHA CALCIT; REM by Ruhr-University-Bochum.

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