

TDS-Technical Data Sheet

PRECIPITATED SILICA

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Production information

Grade: NEWSIL HD 165MP

1. General description

HDS micropearl is a silica dedicated to the reinforcement of High Performance Tire Treads, especially for fuel efficient Tires. NEWSIL HD 165MP is HDS silica with a mechanically compacted micro-pearls. On account of the granulation process it leads to less dust development during mixing and has a higher tapped density than powder material.

2. Chemical description

SiO₂, synthetically produced amorphous silicon dioxide

3. Application

NEWSIL HD 165MP possesses a high dispersive and reinforcing potential and imparts to rubber compounds particularly high shore hardness, tensile strength, tear resistance and abrasion resistance. In order to achieve optimum rubber-technical data the addition of activators like glycols, amines or other alkaline accelerators is necessary. On account of the higher surface area NEWSIL HD 165MP in combination with the appropriate compound ingredients, yields vulcanizates of excellent transparency.

Application fields :

Green Tires, mechanical rubber goods, cables and shoe soles of all kinds

4. Specification

Item	Unit	Specification
specific surface area BET	m ² /g	150-180
specific surface area CTAB	m ² /g	145-175
SiO ₂ On dried sample	%	≥90
Drying loss 2h at 105°C	%	4.0-8.0
Ignition loss 2h at 1000°C	%	≤7.0
PH value 10% aqueous disp		6.0-7.5
Na ₂ SO ₄	%	≤2.0
DBP absorption value	cm ³ /g	2.00-3.50
Sieve Residue on 325 mesh	%	≤0.5
Cu	mg/kg	≤10
Fe	mg/kg	≤500
Mn	mg/kg	≤50
Bulk Density	g/l	240-300

5. Storage stability:

NEWSIL HD 165MP	24 months
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To ensure that product properties and application behavior remain unchanged, our precipitated silica and silicates ought to be stored in closed and dry premises protected against exposure to volatile substances. Strict observance of optimum storage conditions ensures prolonged usability, nevertheless we recommend not to exceed a storage period of approximately two years.

6. Product safety

Information concerning the safety of this product is listed in the corresponding Material Safety Data Sheet.