

TDS-Technical Data Sheet

PRECIPITATED SILICA

Production information

Grade: NEWSIL HD 90GR

1. General description

HDS micro-pearl is a silica dedicated to the reinforcement of High Performance Tire Treads, especially for fuel efficient Tires. NEWSIL HD 90GR is HD 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 90GR 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 90GR in combination with the appropriate compound ingredients, yields vulcanizes of excellent transparency.

Application fields:

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

4. Specification

Item	Unit	Specification
Appearance		Granule
specific surface area BET	m ² /g	80-110
CTAB	m ² /g	70-100
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		6.0-7.5
Na ₂ SO ₄	%	≤2.0
Cu	mg/kg	≤10
Fe	mg/kg	≤500
Mn	mg/kg	≤50

5. Storage stability:

NEWSIL HD 90GR	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 Safety Data Sheet.

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