



湖北汇富纳米材料股份有限公司  
HUBEI HUIFU NANOMATERIAL CO.,LTD.



HIFULL-Hydrophilic Fumed Silica

# HIFULL HL-450

## HYDROPHILIC FUMED SILICA

HL-450 is hydrophilic fumed silica synthesized from the hydrolysis of high purity chlorosilane in a flame of oxygen and hydrogen at temperature over 1200°C. Its specific surface area is around 450m<sup>2</sup>/g.

### 01 Applications

- High transparent LSR and adhesives
- Coatings & Printing Inks
- Deformers
- Carrier
- Personal Care Products
- Food
- Constructional Materials

### 02 Properties

- Reinforce materials for elastomers
- Excellent transparency in silicone rubbers
- Rheology control and thixotropic agent
- Good carrier adsorption

### 03 理化数据

性质	单位	典型值	测试标准
Specific Surface Area (BET)	m <sup>2</sup> /g	450±30	GB/T 20020
pH value in 4% dispersion	—	3.7~4.5	GB/T 20020
Loss on drying (2 hours at 105°C)	%	≤2.5	GB/T 20020
Loss on ignition (2 hours at 1000°C, based on material dried for 2 hours at 105°C)	%	≤2.5	GB/T 20020
Tamped Density (Based on material dried at 105°C for 2 hours)	g/L	40~60	GB/T 20020
Sieve Residue (45µm)	mg/kg	≤250	GB/T 20020
Silica Content (Based on ignited material)	%	≥99.8	GB/T 20020

※ customized products available for special physical or chemical data



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HIFULL-FUMED SILICA | Parameter Summary

# FUMED NANOMATERIAL EXPERT

Grade	Specific Surface Area (nitrogen adsorption method) (m <sup>2</sup> /g)	pH value in dispersion	Loss at 105°C (%)	Loss on ignition (%)	Sieve residue (45μm) (mg/kg)	Silica content (%)	Carbon content (%)	Tamped density (g/L)	Product application
<b>Hydrophilic Fumed Silica</b>									
HL-90	100±20	3.9~4.5	≤1.0	≤1.5	≤250	≥99.8	—	45~60	Surface-treatment for base materials, Polish & Grind, Coatings, Printing inks, Personal Care Products, Food
HL-150	150±15	3.9~4.5	≤1.5	≤2.0	≤250	≥99.8	—	40~60	Silicone rubber, rubber, offset printing, medicines, cosmetics, creams, thermal insulation materials
HL-200	200±20	3.9~4.5	≤2.0	≤2.0	≤250	≥99.8	—	40~60	Silicone rubber, adhesives, inks, coatings, pharmaceuticals, defoamers, thixotropic resins, gel coat resins
HL-260	260±20	3.7~4.5	≤2.0	≤2.0	≤250	≥99.8	—	40~60	HTV & LSR Silicone Rubbers, Adhesives, Coatings & Printing Inks, UPR resins, Thermal Materials
HL-300	300±25	3.7~4.5	≤2.0	≤2.5	≤250	≥99.8	—	40~60	Silicone rubber, rubber, coatings, paint
HL-380	380±30	3.7~4.5	≤2.5	≤2.5	≤250	≥99.8	—	40~60	Silicone rubber, defoamer, ink, adhesive, pesticide
HL-450	450±30	3.7~4.5	≤2.5	≤2.5	≤250	≥99.8	—	40~60	High transparent LSR, Adhesives, Coatings & Printing Inks, Deformers, Carrier
<b>Hydrophobic Fumed Silica</b>									
HB-612	140±20	5.0~8.0	≤0.7	≤2.0	—	≥99.8	0.7~1.3	40~60	Room temperature vulcanization (RTV) silicone rubber, ceramics, pesticides, defoamers
HB-615	140±20	5.0~8.0	≤0.7	≤4.0	—	≥99.8	1.0~1.7	40~60	Ink, electronic potting adhesive, defoamer, silicone rubber
HB-620	170±30	6.0~9.0	≤0.7	≤4.0	—	≥99.8	1.5~2.5	40~60	Silicone rubber, powder coating, defoamer, paint
HB-630	300±30	6.0~9.0	≤0.7	≤5.0	—	≥99.8	2.5~4.0	40~60	
HB-132	140±20	6.0~9.0	≤0.7	≤4.0	—	≥99.8	2.0~4.0	40~60	Silicone rubber, defoamer, adhesive, sealant
HB-139	110±30	4.0~7.0	≤0.7	≤10.0	—	≥99.8	4.0~7.0	40~60	Powder coatings, adhesives, coatings, sealants
HB-151	120±30	≥3.7	≤0.7	≤2.5	—	≥99.8	0.6~1.2	40~60	Coatings, inks, adhesives, MS adhesives
HB-152	170±30	≥3.7	≤0.7	≤2.5	—	≥99.8	0.8~1.6	40~60	
HB-202N	170±20	8.0~10.0	≤2.0	≤8.0	—	≥99.8	1.0~2.0	40~60	Coatings, anticorrosive coating products, grinding of copper products, water-based inks and water-based coatings
HB-701	150±25	4.0~6.0	≤1.5	≥4.5	—	≥99.8	4.5~6.5	40~60	Paint and coating systems, plastics and elastomers, dental composites
Testing Method	GB/T 20200								
HB-612、HB-615、HB-620、HB-630、HB-132(HMDS-Treated)									
HB-139(PDMS-Treated)									
HB-151、HB-152(DDS-Treated)									
HB-202N、HB-701(Special Silane Treated)									

Grade	Specific surface area (BET)	pH in 4% dispersion	Loss on drying (2 hours at 105°C)	Loss on ignition (2 hours at 1000°C)	TiO <sub>2</sub> Content (based on ignited material)	Tamped density	Crystalline Structure	Product application
<b>Fumed Titanium Dioxide</b>								
NT-50	50±15	3.5~4.5	≤1.5	≤2.5	≥99.5	140±40	混合晶型	silicone rubber, photocatalyst, Li-ion batteries, self-cleaning coating, Antibacterial paint, sun-block cream

Grade	Specific surface area (BET)	pH in 4% dispersion	Loss on ignition (2 hours at 1000°C)	Al <sub>2</sub> O <sub>3</sub> Content (based on 300°C dried material)	Crystalline Structure	Product application
<b>Fumed Aluminium Oxide Al<sub>2</sub>O<sub>3</sub></b>						
ALuna-100	100±15	≥3.9	≤2.0	≥98.0	混合晶型	powder coatings, printing ink, Li-ion batteries, electret masterbatch, thermal insulation material, fluorescent lighting