

HB-701

HYDROPHOBIC FUMED SILICA

HB-701 is surface-treated fumed silica with active silanol group modified by special silane.

01 Applications

- paints & coatings
- Plastics & Elastomers
- Dental composite materials

02 Properties

- Used as rheology control agent in composite liquid system;
- Improve scratch resistance & abrasion resistance for paints & coatings (UV coatings)
- Enhance mechanical properties, strength of composite materials and plastics

03 Physical & Chemical Data

Properties	Unit	Typical Value	Testing Standard
Specific surface area(BET)	m ² /g	150 ± 25	GB/T 20020
pH in 4% dispersion (H ₂ O: Ethanol=1:1)		> 4.0	GB/T 20020
Loss on drying(2 hour at 105°C)	%	≤1.5	GB/T 20020
Loss on ignition (2 hour at 1000° based on material dried for 2 hours at 105°C)	%	≥4.5	GB/T 20020
Silica content (based on ignited material)	%	≥99.8	GB/T 20020
Tamped density(based on material dried for 2 hours at 105°C)	g/dm ³	60 ~ 100	GB/T 20020
Carbon content(based on material dried for 2 hours at 105°C)	%	4.5~6.5	GB/T 20020

FUMED SILICA EXPERT

Grade	Specific surface area (m ² /g)	pH in 4% dispersion	Loss on drying (2 hour at 105°C) (%)	Loss on ignition (2h @1000°C)	Silica content (based on ignited material) (%)	Carbon content (based on material dried for 2 hours at 105°C) (%)	Tamped density (g/dm ³)	Product application
Hydrophilic								
HL-150	150 ± 15	3.9 ~ 4.5	≤ 1.5	≤ 2.0	≥ 99.8	-	30 ~ 60	Silicone rubber, rubber, offset printing, medicines, cosmetics, creams, thermal insulation materials
HL-200	200 ± 20	3.9 ~ 4.5	≤ 2.0	≤ 2.0	≥ 99.8	-	30 ~ 60	Silicone rubber, adhesives, inks, coatings, pharmaceuticals, defoamers, thixotropic resins, gel coat resins
HL-300	300 ± 25	3.7 ~ 4.5	≤ 2.0	≤ 2.5	≥ 99.8	-	30 ~ 60	Silicone rubber, rubber, coatings, paint
HL-380	380 ± 30	3.7 ~ 4.5	≤ 2.5	≤ 2.5	≥ 99.8	-	30 ~ 60	Silicone rubber, defoamer, ink, adhesive, pesticide
HL-150W	150 ± 10	3.9 ~ 4.5	< 1.0	< 2.0	≥ 99.8	-	30 ~ 60	Elastomers, silicone rubber, natural rubber, synthetic rubber, adhesives, sealants, thermal insulation materials
HL-200W	200 ± 15	3.9 ~ 4.5	< 1.5	< 2.0	≥ 99.8	-	30 ~ 60	Adhesives, silicone rubber, coatings and inks, unsaturated polyesters, cosmetics, personal care, wire gels, gel batteries, thermal insulation materials
Hydrophobic								
HB-612	140 ± 20	5.5 ~ 7.5	≤ 0.7	≤ 2.0	≥ 99.8	0.7 ~ 1.3	40 ~ 60	Room temperature vulcanization (RTV) silicone rubber, ceramics, pesticides, defoamers
HB-615	160 ± 30	5.5 ~ 7.5	≤ 0.5	≤ 4.0	≥ 99.8	1.0 ~ 1.7	40 ~ 60	Ink, electronic potting adhesive, defoamer, silicone rubber
HB-620	210 ± 30	5.5 ~ 8.0	≤ 0.5	≤ 4.0	≥ 99.8	1.5 ~ 2.5	40 ~ 60	Silicone rubber, powder coating, defoamer, paint
HB-630	320 ± 30	5.5 ~ 8.0	≤ 0.5	≤ 4.0	≥ 99.8	2.5 ~ 4.0	40 ~ 60	
HB-132	120 ± 40	7.0 ~ 8.5	≤ 0.5	≤ 4.0	≥ 99.8	2.5 ~ 4.0	40 ~ 60	Silicone rubber, defoamer, adhesive, sealant
HB-135	300 ± 30	7.0 ~ 8.5	≤ 0.5	≤ 8.0	≥ 99.8	3.5 ~ 6.5	40 ~ 60	
HB-139	100 ± 20	5.5 ~ 7.5	≤ 1.5	≤ 10.0	≥ 99.8	4.5 ~ 6.5	40 ~ 60	Powder coatings, adhesives, coatings, sealants
HB-151	130 ± 20	3.7 ~ 4.5	≤ 0.7	≤ 2.5	≥ 99.8	0.6 ~ 1.2	40 ~ 60	Coatings, inks, adhesives, MS adhesives
HB-152	160 ± 20	3.7 ~ 4.5	≤ 0.7	≤ 2.5	≥ 99.8	0.8 ~ 1.6	40 ~ 60	Coatings, inks, adhesives, MS adhesives
HB-151D	130 ± 20	> 4.0	≤ 0.7	≤ 2.5	≥ 99.8	0.6 ~ 1.2	40 ~ 60	Coatings, inks, adhesives, MS adhesives
HB-152D	170 ± 20	> 4.0	≤ 0.7	≤ 2.5	≥ 99.8	0.8 ~ 1.6	40 ~ 60	Coatings, inks, adhesives, MS adhesives
HB-192V	120 ± 20	4.5 ~ 7.0	≤ 0.8	≥ 2.5	≥ 99.8	2.5 ~ 6.5	60 ~ 100	Silicone rubber and sealant (RTV), paints, coatings, adhesives, Light curing materials
HB-192W	170 ± 20	4.5 ~ 7.0	≤ 0.8	≥ 2.5	≥ 99.8	2.5 ~ 4.0	60 ~ 100	Silicone rubber and sealant (RTV), paints, coatings, adhesives, Light curing materials
HB-202HN	150 ± 20	≤ 11.0	≤ 2.0	≥ 2.0	≥ 99.8	2.0 ~ 4.0	60 ~ 100	Coatings, anticorrosive coating products, grinding of copper products, inks
HB-202N	170 ± 20	≤ 11.0	≤ 4.0	≥ 1.0	≥ 99.8	1.0 ~ 2.0	60 ~ 100	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	60 ~ 100	Paint and coating systems, plastics and elastomers, dental composites
HB-720N	150 ± 30	≤ 11.0	≤ 2.0	≥ 3.5	≥ 99.8	3.5 ~ 5.5	60 ~ 100	Coatings and anticorrosive products, adhesives and inks, grinding of copper products
Testing Method	GB/T 20020							
HB-612、HB-615、HB-620、HB-630、HB-132、HB-135(HMDS-Treated)								
HB-139(PDMS-Treated)								
HB-151、HB-152(DDS-Treated)								
HB-151D、HB-152D(Dimethylsilane/C2H8Si Treated)								
HB-192V、HB-192W、HB-202HN、HB-202N、HB-701、HB-720N(Special Silane Treated)								