



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



HIFULL-Hydrophobic Fumed Silica

HIFULL HB-615

HYDROPHOBIC FUMED SILICA

HB-615 is hydrophobic fumed silica which is produced by hydrophilic fumed silica with specific surface area of 150m²/g after chemical post-treatment with HMDS (Hexamethyldisilazane).

01 Applications

- Elastomers, HTV&RTV silicone rubber, LSR
- Coatings & Printing ink
- Adhesives and Sealants
- Toners
- Powder Coatings

02 Properties

- Reinforcing filler for elastomer, adhesives & sealants
- High hydrophobicity and stable thixotropy
- Anti-settling and anti-sagging agent in coatings and printing ink
- Improving dispersion and stability of pigment
- Rheological control for adhesives & sealants
- Free flow aid and anti-caking aid for powders

03 Physical & Chemical Data

| Properties | Unit | Typical Value | Testing Standard |
|--|-------------------|---------------|------------------|
| Specific Surface Area (BET) | m ² /g | 140±20 | GB/T 20020 |
| Carbon Content (Based on material dried at 105°C for 2 hours) | % | 1.0~1.7 | GB/T 20020 |
| pH value in 4% dispersion | — | 5.0~8.0 | GB/T 20020 |
| Loss on drying(2 hours at 105°C) | % | ≤0.7 | GB/T 20020 |
| Loss on ignition (2 hours at 1000°C, based on material dried for 2 hours at 105°C) | % | ≤4.0 | GB/T 20020 |
| Tamped Density (Based on material dried at 105°C for 2 hours) | g/L | 40~60 | GB/T 20020 |
| Silica Content (Based on ignited material) | % | ≥99.8 | GB/T 20020 |

※ customized products available for special physical or chemical data



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



HIFULL-FUMED SILICA | Parameter Summary

FUMED NANOMATERIAL EXPERT

| Grade | Specific Surface Area (nitrogen adsorption method) (m ² /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 |
|--|--|------------------------|-------------------|----------------------|------------------------------|--------------------|--------------------|----------------------|--|
| Hydrophilic Fumed Silica | | | | | | | | | |
| 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 |
| Hydrophobic Fumed Silica | | | | | | | | | |
| 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 ₂ Content (based on ignited material) | Tamped density | Crystalline Structure | Product application |
|-------------------------------|-----------------------------|---------------------|-----------------------------------|--------------------------------------|--|----------------|-----------------------|---|
| Fumed Titanium Dioxide | | | | | | | | |
| 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 ₂ O ₃ Content (based on 300°C dried material) | Crystalline Structure | Product application |
|--|-----------------------------|---------------------|--------------------------------------|--|-----------------------|--|
| Fumed Aluminium Oxide Al₂O₃ | | | | | | |
| 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 |