



- Tyres (radial and bias tyres):

Properties:

- Superior tear/tensile strength & modulus
- Better abrasion resistance
- Better dynamic properties

Recommended grades:

- MFIL-200(G) (LG type): surface area of 160 m²/gm
- MFIL-200(G) (MG type): surface area of 180 m²/gm
- MFIL-200(G) (HG type): surface area of 220 m²/gm
- MFIL-200(HDS-G): surface area of 165 m²/gm
- MFIL-150(G): low surface area grade of 125 m²/gm
- MFIL-125(G): low surface area grade of 125 m²/gm
- MFIL-100(G): low surface area grade of 115 m²/gm

- Tyres (Green tyres):

Properties:

- Improved abrasion resistance
- Better fuel efficiency
- Low rolling resistance

Recommended grades:

- MFIL-160(SDG)
- MFIL-170(SDG)

- Silicone Rubber

Properties:

- Silica improves processibility of raw mixture
- Offers resistance to heat aging
- Minimise craze hardening
- Provides superior resilience and compression set

Recommended grades:

- MFIL-SR (HTV silicon application), MFIL-P(U)

- Footwear and railway pads

**Properties:**

- Madhu Silica has recently introduced EV grades for the EVA footwear market. The EV grades can be incorporated at 3-5 pHR and imparts good abrasion and modulus properties.
- Provides increased abrasion resistance and strength
- Provides superior durability and resilience and improved modulus
- Acts as a white reinforcing agent, facilitating manufacturing of coloured end products

Recommended grades:

- MFIL-200(S), MFIL-200(FW), MFIL-200(FW-G), MFIL-200(EV), MFIL-200(D) and MFIL-200(P)

- Rubber Rice Rollers and Conveyer Belts

Properties:

- Imparts abrasion resistance.
- Improves tear resistance
- Act as a reinforcing agent
- Provides higher tensile strength, longer live and durability

Recommended grades:

- MFIL-200(S), MFIL-200(RR), MFIL-200(G) and MFIL-200(HG)

- Toothpaste

Thickening silica grades:

- MFIL-P: Thickening silica providing body to the toothpaste. Helps maintaining rheology and improves mouth feel of the toothpaste.
- MFIL-HV: High thickening silica that imparts body build up of toothpaste containing lower silica dosage

Abrasive silica grades:

- ABSIL-100: Medium abrasive silica that is used as a cleaning/polishing agent in toothpastes. The RDA is around 120.
- ABSIL-100(C): Medium abrasive silica that is used as a cleaning/polishing agent in toothpaste. RDA is around 95. Absil 100(C) also gives good transparency in clear gels
- ABSIL 100(L): Low abrasive silica that is used as cleaning/polishing agent in kid's toothpaste and other low abrasive dental formulations. The RDA is around 70.



- ABSIL HC: This product has a RDA of about 180 and gives very high cleaning/polishing in toothpastes even at a dosage of 1%
- ABSIL 200: High cleaning silica with RDA of about 200. This grade is an excellent provider of high cleaning in formulations for whitening, smokers toothpaste etc. A small dosage (1%) to a tooth paste formulation gives already the effect.

Agglomerated silica: Fragile granules

- MAG series: Uniform free flowing agglomerated silica granules that provide sensory mouth feel and aesthetic effect in gel toothpastes. Available in white/blue/pink/green/red-brown & various other colours.

Sensory silica: non fragile granules

- MMG series: Uniform free flowing non fragile silica granules that provide sensory mouth feel and aesthetic effect in gel toothpastes. Available in white/blue/pink/green/red-brown & various other colours

Mentholated non fragile silica granules

- BMT series: Uniform free flowing non fragile mentholated silica granules that provide sensory mouth feel and aesthetic effect in gel toothpastes. Available in white and blue colours.

- Cosmetics

Products:

- MFIL-TS is a hydrophobic silica for imparting water repellency and anti-settling. Act as a shine controller in cosmetics
- MAG series (agglomerated, fragile granules): Uniform free flowing agglomerated silica granules that provide sensory skin feel and aesthetic effect in gels. Available in white/blue/pink/green/red-brown & various other colours.
- MMG series (non fragile granules): Uniform free flowing non fragile silica granules that provide sensory skin feel and aesthetic effect in gels. Available in white/blue/pink/green/red-brown & various other colours

- Pharmaceutical

Properties:

- High purity, high structure (low bulk density) micronised silica
- Used as an economic replacement of fumed silica



- Tableting aid in medicinal tablets
- Volume filler in capsules
- Free flow aid in medicinal powders

Recommended grades:

- Colloidal Silicon Dioxide IP, BP, USP

- Food

Properties:

- E-551 and E554.
- Enhances free flow properties of salt/powdered food/pre-mixes/spices etc
- Does not effect the colour, taste, odour or nature of the end product
- Products are manufactured in the cosmetic license and are chemically inert, pure white and neutral pH

Recommended grades:

- MFIL-P(S), MFIL-300, MASIL, MASIL-7

- Feed

Properties:

- FAMI-QS approved
- High absorbing capacity while remaining a free flow powder
- Converting liquid ingredients into free flowing powder
- Products are manufactured in the cosmetic license
- Free flow / Anti-caking agent

Recommended grades:

- MFIL-P(U), MFIL-200(D) for carrier application
- MFIL-P(S) for free flow / anti-caking

- Chemical Industry

Properties:

- High absorbing capacity while remaining a free flow powder
- Converting liquid actives into free flow powder
- Free flow / Anti-caking agent

**Recommended grades:**

- MFIL-P(U), MFIL-200(D) for carrier application
- MFIL-P(S) for free flow / anti-caking

- Plastics**Properties:**

- Anti-slip agent for PP/PE films
- Improves film optical properties
- Silica gives micro rough surface and improves mold release
- Prevents plate-out phenomena in PVC formulations

Recommended grades:

- MFIL-300, MFIL-300(I), ABSIL-100(I)

- Paints and Inks**Properties:**

- TiO₂ extender in water based emulsion paints
- Lower formulation costs

Recommended grades:

- MASIL, MASIL-7

- Paper**Properties:**

- Provides higher brightness
- Enhances optical properties
- Good hiding power, increase bulk of paper

Recommended grades:

- MASIL, MASIL-7