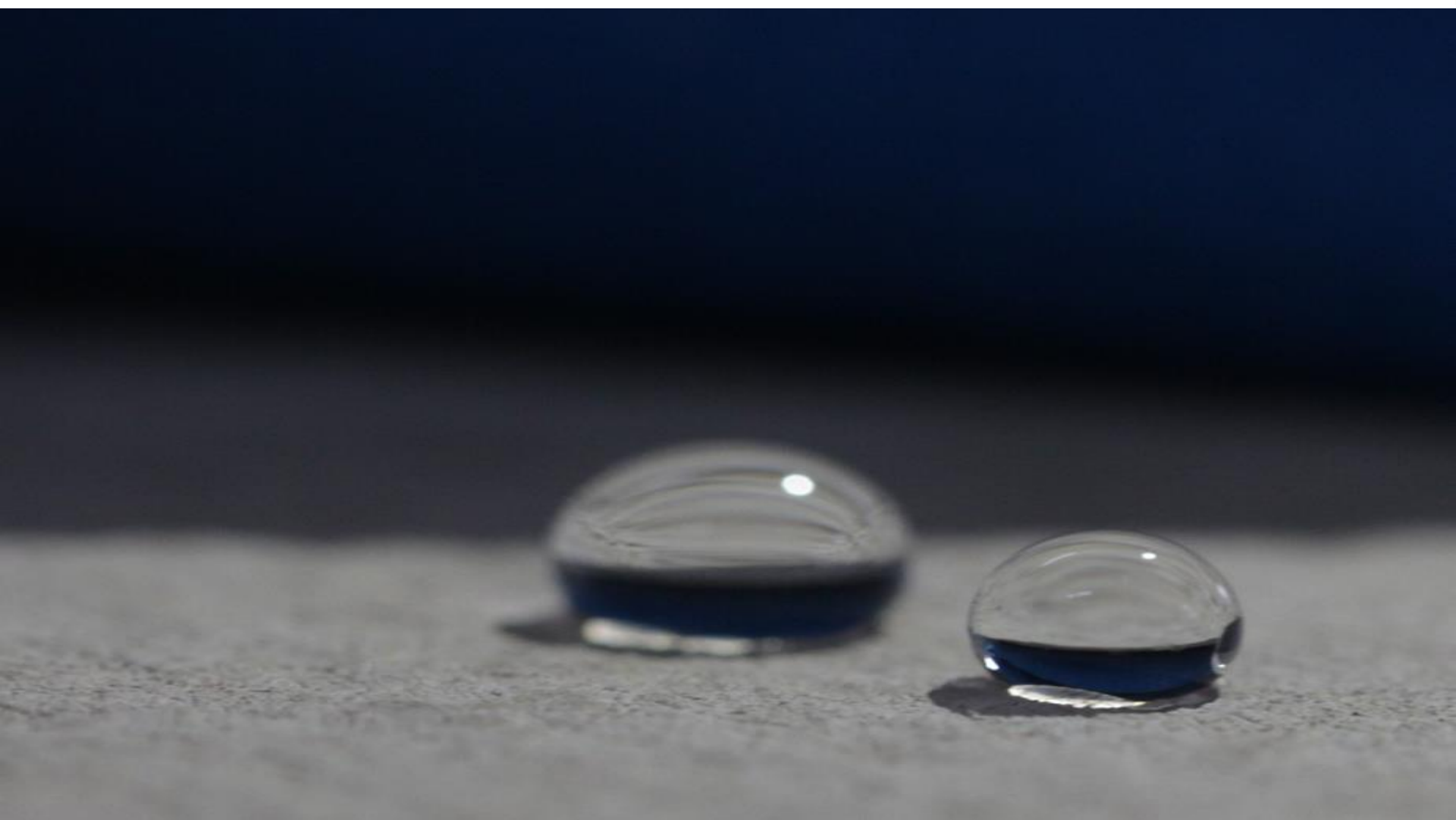
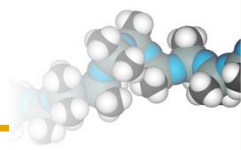
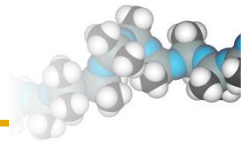
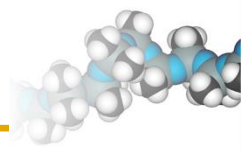


ELKAY CONSTRUCTION SOLUTIONS





- **Silane siloxane blends** for water repellency
- **Reactive silicone additives** for priming, water repellency and anti-stain
- **Water based silicone formulations** ready to use or easily dilutable additives for priming, water repellency and anti-stain
- **General silicone additives and formulations** for defoaming coatings, anti-viral, wetting and hydrophobizing
- **Silicone resins** give hard coatings with gloss, anti-viral/bacterial/fungal, water and heat resistance alone or as coating additives



SILANE SILOXANE BLENDS

Creates excellent super water repellent surfaces with ease in coatings

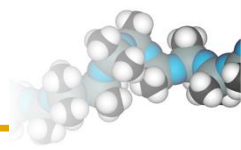
LIQUIDS	Solid Concentration	Type
LK AQUA EM 290	40%	Silane/Siloxane blend. Aqueous milky emulsion. Water dilutable up to 14 times.
LK SEAL 290	100%	Silane/Siloxane blend. Solvent dilutable, clear pale yellow. Ready to use.

- Water repellent action
- Deep penetration of absorbent surfaces
- Reduction in water uptake, increases substrate durability (vertical/angled surfaces)
- Surface is ready in less than 24 hours after treatment
- 5 year life in most environments
- Environmentally compatible
- Excellent on cement, plaster, exterior walls, non-vitrified tiles, porous stones



NO APPEARANCE CHANGE

INCREASES LIFE



REACTIVE SILICONE ADDITIVES

Creates excellent water repellent surfaces with ease in coatings

LIQUIDS	Reactivity	Type	Attributes
LK HTF	Hydroxy	Fluid	Reactive silicone useful in heat cured systems, blend component for formulations. 2K, 4K, 20K, 50K viscosities.
LK RX22D	Hydride	Fluid	Reactive silicone useful in reducing moisture uptake in gypsum (ad-mixture)
LK Aminosilane AP	Amino	Silane	Coupling and priming agent between organic, inorganic and metals
LK EpoxysilaneM	Epoxy	Silane	Coupling and priming agent between organic, inorganic and metals
LK SEAL 100	Hydroxy	Fluid	Superhydrophobic coating liquid, release aid
LK S104 FLUID	Hydroxy	Fluid	Silicone MQ Resin based superhydrophobic additive, anti-block
LK CERAGUARD	Hydride	Fluid	Reactive silicone useful in stain repellency, long term lubrication coatings (rubber/fabric). Increases life of cement paints when used as a binder.

PERFORMANCE PRODUCTS

INCREASES LIFE

*Pending commercialization



WATER BASED SILOXANE FORMULATIONS

Creates excellent water repellent surfaces with ease in coatings

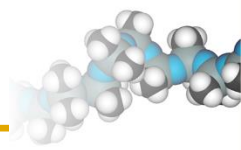
LIQUIDS	Solids	Type
LK EMR 422	35%	Milky emulsion. Water dilutable up to 10 times. Economical.
LK EM 6060	55%	Milky emulsion. Water dilutable up to 10 times. Release aid.
LK AQUA EM 292C	55%	Milky emulsion. Waterproof primers and paint additive.
LK EM 1500	40%	Clear amber. Water dilutable to 50 times. Anti-viral/bacterial#
LK SEAL 48	10%	Water resisting, water dispersible anti-stain for stones, tiles, cement, ready-to-use

- Water repellent action with inherent fungal resistance
- Excellent bonding with inorganic pigmented surfaces (like iron oxides)
- Reduction in water uptake, increases substrate durability
- Surface is ready in less than 12 hours after treatment
- 5 year life in most environments, environmentally compatible
- Gives gloss and may deepen colour of the substrate
- Excellent on cement, plaster, exterior walls, non-vitrified tiles, porous stones
- Repaintable, can be used water repellent primers
- Improves water resistance and mar resistance when added to paints (2-5%)

LOW DOSAGE

ECONOMICAL

#As per ISO - 21702; 2019 and JIS Z2801: 2010



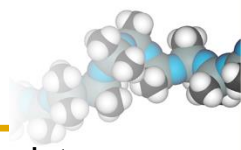
OTHER SILOXANE FORMULATIONS

LIQUIDS	Solid	Type
LK EMR 52	50%	Milky emulsion. Water dilutable up to 10 times. Reactive. Excellent for concrete coatings.
LK AF 514	100%	Silicone based defoaming fluid, polysulphide gun grade sealants
LK AF SPA	25%	Defoaming aid for water based formulations
LK EMR S47	~70%	Hydrophobizing agent for soil/clays/bricks. Dilutable to 300 times.
LK SW Pt	100%	Superwetting agent and pigment dispersion aid
LK Aquashield TD	-	Resin based ready to use super-hydrophobizing coating for textiles/wood/others
LK S49 Defoamer	5%	Defoaming and levelling fluid for viscous organic resins, epoxy, polysulphide pour grade sealants
LK 7302	100%	Wetting agent, surface tension reducer, dispersing aid

RANGE OF CHEMISTRIES

CUSTOMIZABLE

*Pending commercialization #As per ISO - 21702; 2019 and JIS Z2801: 2010

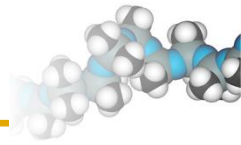


SILICONE RESINS

- Silicone resins form 3 dimensional networks once cured. Excellent durability, water and heat resistance.
- LK Q1000PHM can be formulated to create coatings that can sustain 650-750 C for short durations
- Excellent weatherability make these an ideal choice to be used alone or with other binders for durable, high performance coatings

RESIN	TYPE	Attributes
LK Q1000M	Methyl	Moisture cure, tough hard coatings, quick cure, heat resistance
LK Q1000MNC	Methyl	Tough hard coatings, quick cure with catalyst, better adhesion
LK Q1001M	Phenyl Methyl	Moisture cure, tough hard coatings, quick cure, better adhesion
LK Q1000PHM*	Phenyl Methyl	Moisture cure, tough hard coatings, high gloss, excellent compatibility with other resins, excellent heat resistance
LK Q1000PHMX	Phenyl Methyl (in xylene)	Moisture cure, tough hard coatings, high gloss, excellent compatibility with other resins, excellent heat resistance
LK Q1000PHMNC /LK E15 Resin*	Phenyl Methyl	Tough hard coatings, high gloss, excellent compatibility with other resins, excellent heat resistance
LK Q1000A	Aminoalkyl	Non-curing, excellent primer, water resistance, anti-stain
LK Q1000AP	Aminoalkyl	Non-curing, excellent primer, water resistance, anti-stain
LK Q1018*	Phenyl Methyl	Flake Resin, high phenyl, compatible with many systems like epoxy
LK Q1000MQ*	MQ	Non-curing, powder resin, highly hydrophobic and film forming

*Pending commercialization

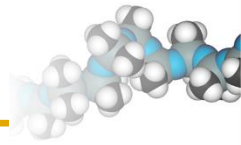


Elkay resin solutions available for sampling include

- **LK-Q1000M (methyl silicone resin)**
 - Very low viscosity
 - Quick moisture cure
 - Excellent on wood (natural or particle board), decorative paints for release and dust resistant enamel like coats
 - Excellent compatibility with quat anti-microbials, metal nano-particles and others
- **LK-1000PHMX (methyl phenyl silicone resin in xylene)**
 - Excellent compatibility with other non-silicone resins as co-binders and with quat anti-microbials, etc.
 - Quick moisture cure
 - Excellent on wood (natural), metal, glass, plastics, tiles
 - Can be formulated to create high heat resistance coatings (above 600°C)
- **LK-Q1000PHM (methyl phenyl silicone resin)**
 - Quick moisture cure upon catalyst addition
 - Excellent on wood (natural or particle board), painted surfaces, tiles, paper, glass, certain plastics
 - Excellent compatibility with quat anti-microbials and others
 - Can be made available for food-contact applications if required
- **LK-Q1000A (amino silicone resin)**
 - Excellent anti-stain behavior, has some anti-microbial character, excellent compatibility with quat anti-microbials
 - Reduces moisture pickup in ad-mixtures like cement and decorative paints
 - When blended with Q1000M gives a quick moisture cure, can be cured on even wet surfaces.
 - The above diluted sprays on still-wet seepage in cement wall panels have shown 80% reduction in water absorption (by dipping) and complete water resistance (by spraying). Can be used to control mold/mildew health hazards in buildings currently suffering from seepage.

*Pending commercialization

HEALTH: LK-AquaShieldTD



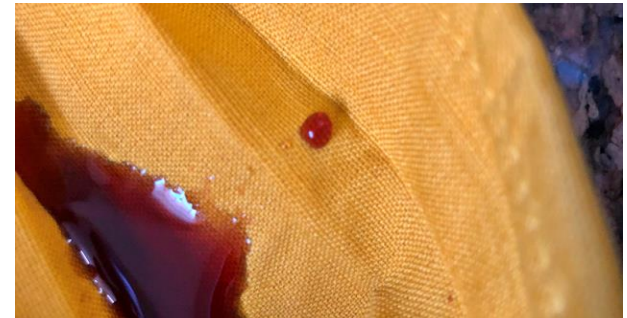
LK- AquaShieldTD is liquid coating solution that can create ultra-hydrophobic surfaces on virtually any material. It can be padded/exhausted on fabrics (low VOC solvent based), or simply sprayed on and allowed to set. This quick dry system can give complete durable water repellency to cotton, polyesters, blends, denims and tent fabrics. This is a ready to use solution with a low odor and safe carrier. No nanoparticles, no tin or toxic metals, no heavy odors – just dryness.

In the current market with health and sanitization being of the utmost importance, there is a significant need for creating quick water repellent and resistant surfaces.

Hospitals require quick partitioning of rooms, the creation of extra spaces and the creation of quarantine wards. These can all be done with simple easily available cheap fabrics if the fabric can protect equipment and people from water ingress (rain, washing, body fluids). Furthermore, the fabric becomes more dirt resistant and repels stains.

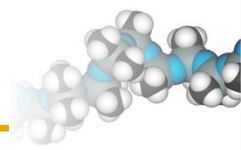
Simple personal protective equipment like cotton masks, non-woven masks and cloth can also be made water resistant allowing for easier re-use, stain and odor prevention, almost instant drying and wearer comfort.

Use: The spray can be used as is or can be further solvent diluted. Do not add water. Use gloves and goggles when applying and stay far away from any open flames or sparks. Spray as evenly as possible and ensure complete wetting of the treated surface. For thicker fabrics (150gsm+) like umbrellas, spray on both sides. The product properties should ensure wetting, but in the rare case this is not happening, and the liquid is beading up – please contact your ELKAY representative. Ideally let the initial 1st coat dry for 30 minutes before applying a 2nd coat. Let the surface dry for at least 4 hours minimum and 24 hours ideally before use. It can also be aerosolized. This does not resist high pressure water jets or prolonged submersion in water bodies, however such use does not destroy the coating and it may be used again normally upon drying.

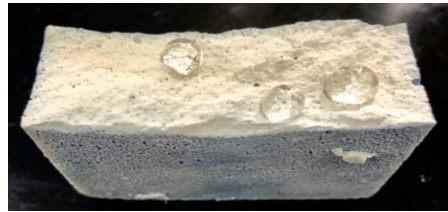


*Pending commercialization

SOME SILICONE RESIN APPLICATIONS



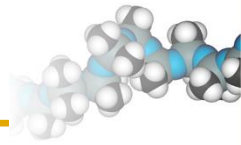
- LK Q1000M and LK Q1000A
 - Gypsum cross-section showing penetration of spray applied with a mixture of the two resins. The spray has penetrated 20 mm into the normally hydrophilic gypsum.
 - It has been shown to reduce water uptake in paper cement boards by 70% even when sprayed on wet board. Such cement board with 24 hour water gain less than 5% can be achieved instead of the standard 30-40%.



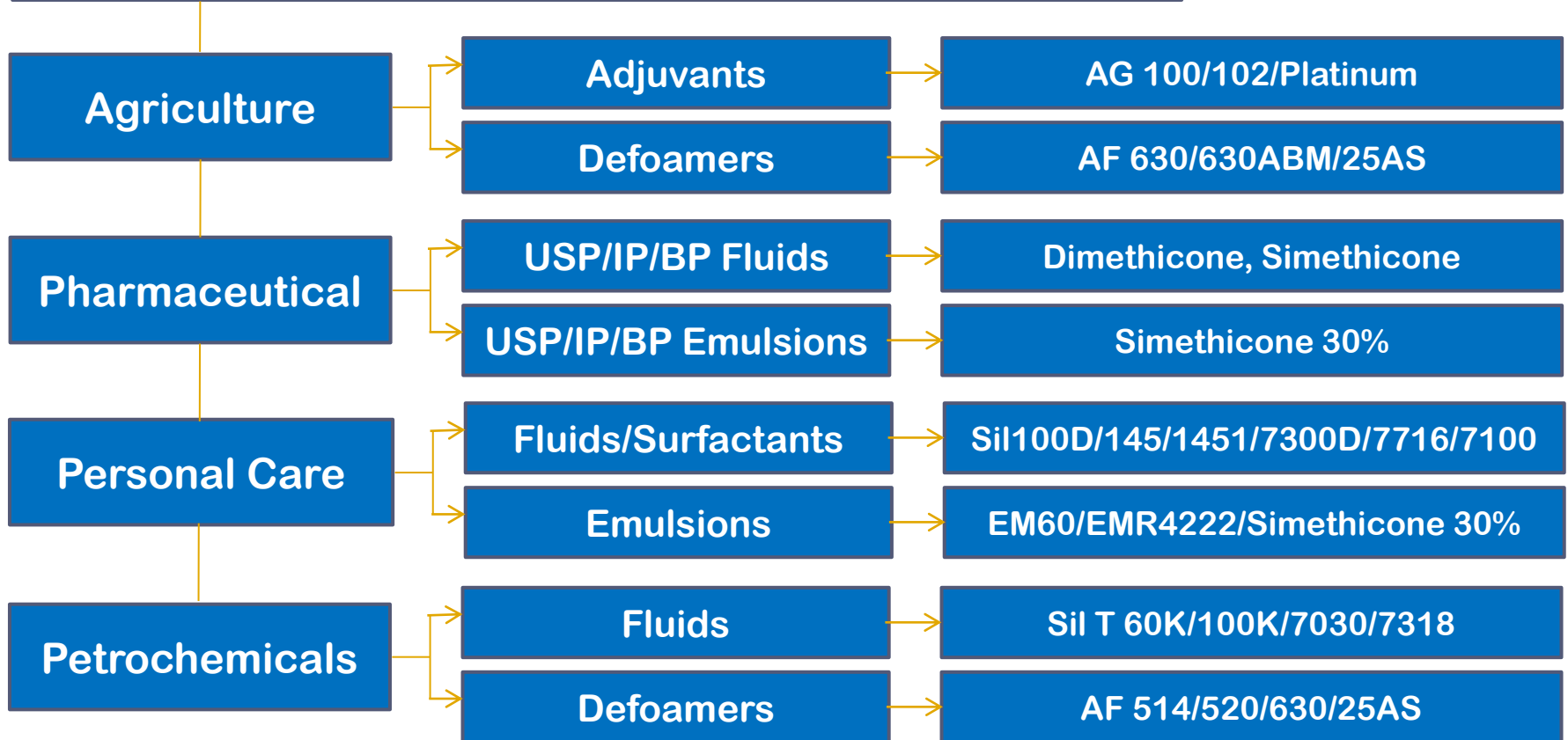
- LK Q1000M/ LK Q1001M
 - Addition of anti-microbial and anti-viral agents like Benalkonium Chloride to this resin show anti-viral activity[#] on the hard coatings
 - Such coatings can be used for homes, hospitals, etc. with exceptionally long durability – possibly even 5 years (to be studied)
 - Other anti-viral compounds addition, such as LK Q Silsafe^{*#}, and to other resins, is pending.

*Pending commercialization [#]Per ISO - 21702; 2019 and JIS Z2801: 2010, MS2 RNA virus, >99.98% viral reduction (2 and 24 hours)

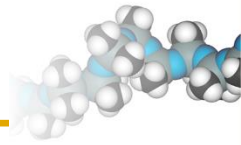
PRODUCT RANGE



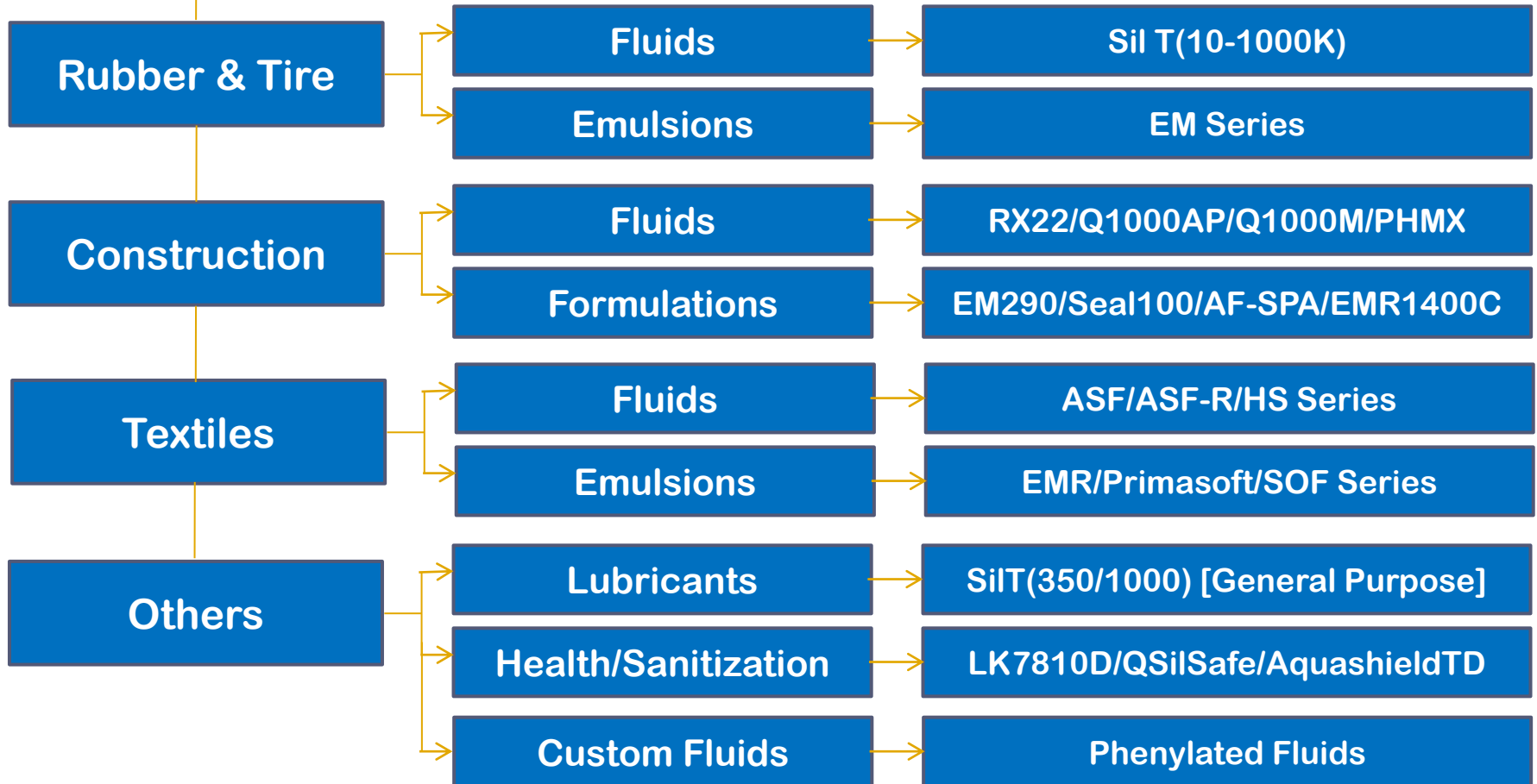
Product Segments

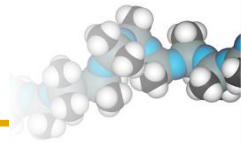


PRODUCT RANGE



Product Segments





Overall:

- High quality- cost effective product range
- Effective, constant and fast innovation processes – 10 new products in 2021
- Strong technology base including industry leading silicone technology
- Ability to work collaborative with global customers/custom development
- Integrated manufacturing from monomers to emulsion formulations
- FDA GMP Plant
- Regulatory compliant facilities with scope to expand
- Relationship and Ethics focus

We Enhance Your Lives

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