Home Care segments

Surface Care

Furniture and wood polishes
Floor polish
Metal/stainless steel polish
Shoe & Leather care
Glass cleaners
Carpet cleaning products
Tile grout sealers
Antistatic solutions
Home Care segments

Laundry Care

Laundry detergents additives
Fabric softeners additives
Dry cleaning
Car Care segments

Surface Care

Paint polish
Vinyl cleaners
Rubber & tyre shines
Rapid / show-room shines
Windscreen & glass cleaners
Leather renovators

See Specific presentation
## Surface care: Silicone oil properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>+ Effect</th>
<th>- Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low coefficient of friction</td>
<td>Silky soft, easy ironing</td>
<td></td>
</tr>
</tbody>
</table>
| Low surface tension [20 mN/m] | Excellent spreading/penetration  
Effective at low concentrations |                                                                          |
| Low polarity                | Liquid at high Mw  
No harshness                                                                | Poor substantivity  
No wash durability                                                             |
| Non reactive                | Thermal stability  
Low odour & toxicity                                                         | Not biodegradable but environmentally degradable                        |
| Hydro- & Lipophobic         | Soil repellent, stain release  
Precipitates on fabric  
Antifoam                                                                | Difficult to formulate  
Spotting  
Staining                                                               |
| High refractive index [1,45] | Colour enhancement, gloss                                                |                                                                          |
Home - Surface care applications

• **Furniture and wood polish**
  – *Shine ingredients in liquid o/w furniture care emulsions providing full surface conditioning & protection*

• **Floor polish additives**
  – *Active ingredients in o/w emulsions or solvent-based floor care formulations providing a durable non-slip but easy-to-polish protective film*

• **Shoe & leather care**
  – *High gloss, lubrication for sponges. Useful spreading, leveling & wetting of shoe polishes*

• **Glass cleaning**
  – *Offers transient shine, anti-streak by slow drying and anti-fogging*

• **Glass/plastic mirrors & shower cabinet sprays**
  – *Anti-spotting, streaking and anti-fogging*
Home - Surface care applications

- **Carpet cleaning**
  - Defoamers are widely used in ‘foam-cleaning’ machines - Rugdoctor

- **Wet-wipes**
  - Host of application possibilities for all surface types

- **Antistatic agents**
  - Offers static control in office areas where computers and polymer carpets coexist

- **Plant care**
  - Aids gloss enhancement in leaf-shine products
Silicone Oils
  Solvent-based formulations basis or for emulsion production
Volatile Silicones
  Replace organic solvent as carriers in polish formulations
Silicone Emulsions
  Gloss & water repellent additive for water-based polish
Silicone Glycols
  Foam boosters and wetting agents in floor & surface cleaners
Amino-functional Silicones
  Provide durability & detergent resistance to surface care products
Silicone resins
  Provide enhanced film forming & water-repellency
Silicone antifoams
  Inhibits foam development in formulations, aids bottle filling
BRB surface care product range

Silicone oils & Silicone emulsions
- **BRB Silicone Oils** 50, 350, 1000, 12.500, 60.000 cSt
- **BRB Sempure** 35, Sempure 60
- **BRB Sempure HV** 3500, Sempure HV 6500

Volatile Silicones
- **BRB CM** 40, CM 50, Silicone oil 0,65 cst

Silicone Glycols
- **BRB 526, 6373, BRB 356** NEW

Aminofunctional Silicones & Emulsions
- **BRB 864, 869**
- **BRB Sempure 3733, Sempure 230** NEW

Silicone resins
- **BRB TMS**

Silicone antifoams
- **BRB Snapsil RE** 10, 20
- **BRB Snapsil 100**
New for hard surface cleaners

• **BRB Sempure 230 - properties**
  - 30% active, micro-emulsion of silicone quaternium polymer
  - Specifically developed for cleaning formulations
  - Offers shine and protection to ceramics, glass and painted surfaces

• **Benefits**
  - Hydrophobising film former
  - Reduces formation of streaks and scale on tiles and glass
  - Increases the durability of water based polishes
  - Easy to formulate into aqueous blends
New Polyether modified Trisiloxane

- **BRB 356 - properties**
  - Superspreading surfactant based on trisiloxane ethoxylate
  - Outstanding surface tension reduction
  - Water soluble

- **Benefits**
  - Improves spray coverage
  - Excellent penetration, antifogging and sheeting properties
  - Reduces surface tension already at very low level (0.1%)
## Surface care: product selector

<table>
<thead>
<tr>
<th>Product</th>
<th>Car care</th>
<th>Shoe / leather care</th>
<th>Furniture polish</th>
<th>Floor polish</th>
<th>Metal polish</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRB Silicone oils 50 to 60,000 cSt</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BRB Sempure 35 &amp; 60</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BRB Sempure HV 3500 &amp; 6500</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BRB CM 40, CM 50, Silicone oil 0.65 cst</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRB 356, 526, 6373</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BRB Sempure 3733</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>BRB Sempure 230</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB 864 &amp; 869</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB Snapsil RE 10, 20, Snapsil 100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB TMS</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Laundry Care applications

• Laundry detergents
  – *Silicone antifoams prevent and knock down foam that occurs during consumer use & during manufacture*
  – *For liquid, powder, tablet detergents*

• Fabric softeners
  – *Silicones emulsions incorporated into fabric softeners & ironing aids*
  – *Enhanced softness, improves iron-glide and better water absorbency*

• Dry cleaning
  – *Alternative to perchlorethylene*
  – *Silicone route is nontoxic, nonhazardous waste*
  – *Gentler on garments and does not cause colour loss*
  – *Usually requires spotting agents*

Requires a license from GreenEarth Cleaning
Silicones for Laundry Care

Silicone antifoams
Foam control in liquid detergents, fabric conditioners, floor polishes & carpet cleaners
Antifoam systems for powder detergents
(post-addition or spray on)

Silicone Glycols
Wetting agent, ease of ironing benefit in liquid laundry tablets

Silicone Emulsions
Softness, anti-wrinkle, ease of ironing and water absorbency for fabric softeners

Volatile Silicones
Dry cleaning solvent
Laundry Care product range

Silicone antifoams
   *BRB Snapsil RE 10, RE 20*
   *BRB Snapsil 100*
   *BRB Snapsil 20LD, 100LD, 100PD  NEW*

Silicone Glycols
   *BRB 526*

Silicone Emulsions
   *BRB Sempure 35, 60*
   *BRB Sempure 270  NEW*

Volatile Silicones
   *BRB CM 50*
New Silicones for Laundry Care

• BRB Sempure 270 - properties
  • 70% active, micro-emulsion of Quat Polyether terpolymer
  • Specifically developed for fabric treatment
  • Recommended for use in rinse-cycle laundry products.
  • Compatible in aqueous dispersion with organic softeners (e.g. esterquats).
  • Typical formulation contains 2.5% BRB Sempure 270 and 15% organics.
  • Post-addition with moderate agitation

• Benefits
  • Deposits onto fabric from the rinse cycle
  • Enhance softness (silicones have a silky feel attenuating the ‘greasier’ organics)
  • Promotes ease ironing
  • Improve water absorbency
New Silicones for Laundry Care

• **BRB Snapsil 100PD**
  - 100% active, modified silicone antifoam compound
  - Ideal for powder/granular detergents, tablets
  - Applied during spray-drying, fluidized bed (0.25%)
  - Excellent alkali stability
  - Functions across full wash temperature spectrum

• **BRB Snapsil 100LD**
  - 100% active, water dispersible compound
  - Ideal for transparent liquid detergents
  - Dosed by low shear post-dosing
  - Excellent stability in High alkali & surfactant loadings
  - Offers excellent colour & perfume compatibility

• **BRB Snapsil 20LD**
  - 20% active, highly effective white emulsion
  - Ideal for opaque liquid detergents
Laundry care: product selector

<table>
<thead>
<tr>
<th>Product</th>
<th>Liquid laundry detergents</th>
<th>Liquid laundry tablets</th>
<th>Powder laundry detergents</th>
<th>Fabric softeners</th>
<th>Carpet cleaners</th>
<th>Dry cleaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRB Snapsil RE 10, 20</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB Snapsil 100</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB Snapsil 100LD, 20LD</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRB Snapsil 100PD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB 526</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>BRB Sempure 35 &amp; 60</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BRB Sempure 270</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>BRB CM 50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>