



## PRODUCT SPECIFICATIONS

### FINAVESTAN A 50 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 7.0 – 8.0      |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 825.0 – 834.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 6      |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 150      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

The FINAVESTAN White Mineral Oils are produced and controlled according to the standard ISO 9001.

Nanterre, 3<sup>d</sup> December 2008

Guillaume SCHAEFFER  
Product Manager

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TOTAL LUBRIFIANTS  
Société Anonyme au capital de 27 085 708 euros  
Siège social : 562 avenue du Parc de l'Ile – 92029 Nanterre  
552 006 454 RCS Nanterre





## PRODUCT SPECIFICATIONS

### FINAVESTAN A 80 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 14.5 – 17.5    |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 842.0 – 867.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 6      |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 180      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

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Nanterre, 29<sup>th</sup> March 2010

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## PRODUCT SPECIFICATIONS

### FINAVESTAN A 100 B White Mineral Oil

**Important note:**

From 1<sup>st</sup> December 2010, the viscosity of FINAVESTAN A 100 B changes from 18 mm<sup>2</sup>/s to 23 mm<sup>2</sup>/s (typical value).

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 20.7 – 25.3    |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 844.0 – 867.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 6      |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 185      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

The FINAVESTAN White Mineral Oils are produced and controlled according to the standard ISO 9001.

Nanterre, 12<sup>th</sup> October 2010

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552 006 454 RCS Nanterre





## PRODUCT SPECIFICATIONS

### FINAVESTAN A 180 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 27.7 – 31.0    |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 847.0 – 868.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 6      |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 200      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

The FINAVESTAN White Mineral Oils are produced and controlled according to the standard ISO 9001.

Nanterre, 29<sup>th</sup> March 2010

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552 006 454 RCS Nanterre





## PRODUCT SPECIFICATIONS

### FINAVESTAN A 210 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 36.0 – 42.0    |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 851.0 – 869.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 6      |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 210      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

The FINAVESTAN White Mineral Oils are produced and controlled according to the standard ISO 9001.

Nanterre, 29<sup>th</sup> March 2010

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## PRODUCT SPECIFICATIONS

### FINAVESTAN A 360 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 65.0 – 75.0    |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 855.0 – 871.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 12     |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 240      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

The FINAVESTAN White Mineral Oils are produced and controlled according to the standard ISO 9001.

Nanterre, 29<sup>th</sup> March 2010

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## PRODUCT SPECIFICATIONS

### FINAVESTAN A 520 B

#### White Mineral Oil

| CHARACTERISTICS                        | METHODS                                      | UNITS              | SPECIFICATIONS |
|--|--|--------------------|----------------|
| Appearance                             | Visual                                       | -                  | Clear & Bright |
| Odor                                   | Olfactory                                    | -                  | Absent         |
| Color, Saybolt                         | ASTM D 156                                   | -                  | Mini: + 30     |
| Kinematic Viscosity @ 40°C             | ISO 3104<br>ASTM D 445                       | mm <sup>2</sup> /s | 90.0 – 110.0   |
| Density @ 20°C                         | NF EN ISO 12185<br>ASTM D 4052               | kg/m <sup>3</sup>  | 863.0 – 873.0  |
| Pour Point                             | ASTM D 97                                    | °C                 | Maxi: - 12     |
| Flash Point                            | ASTM D 92                                    | °C                 | Mini: 250      |
| Polycyclic Aromatic Hydrocarbons (PAH) | European Pharmacopoeia (most recent edition) | -                  | Pass           |
| Readily Carbonisable Substances        | European Pharmacopoeia (most recent edition) | -                  | Pass           |

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Nanterre, 3<sup>d</sup> December 2008

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