

**PRODUCT SHEET**

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|--|---|
| <b>Title</b>   | <b>FRAMIAL®</b><br>Aluminium hydroxide special  |
| <b>Standard</b>  | TU 1711-015-40705684-2006   |
| <b>Grades</b>  | FRAMIAL®-25, -15, -10, -05, -03, -01  |
| <b>Manufacturer</b>  | GEOKOM, ZAO, Russia, Kaluga oblast,<br>p. Polotnyaniy Zavod, ul. Slobodka, 111A,<br>tel/fax (+08434) 32412, 46006 |
| <b>Product description</b>   | granular or fine dry powder of the white color  |
| <b>Mineral formula</b>   | Aluminium hydroxide of гиббситовой structure  |
| <b>Chemical formula</b>  |   |
| Al(OH) <sub>3</sub>  | >99,5%  |
| Fe <sub>2</sub> O <sub>3</sub>                                     | < 0,03%   |
| Water-soluble salts  | < 0,12%   |
| SiO <sub>2</sub>   | < 0,1%  |
| Na <sub>2</sub> O+K <sub>2</sub> O in account of Na <sub>2</sub> O | < 0,4%  |
| <b>Physical and other parameters</b>                               |   |
| Density, g/cm <sup>3</sup>   | 2,4   |
| Hardness (Mohs)  | 2,5÷3,5   |
| Refractive Index   | 1,56÷1,58   |
| pH Index   | 8÷10  |
| Humidity,%   | < 0,3   |
| Permittivity (ISO 787-14)  | < 100 μS/cm   |
| Losses on ignition (800 °C, 1 hour)                                | > 34%   |

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Technological quality parameters  
of the special aluminium hydroxide FRAMIAL®

| Parameter   | FRAMIAL® |         |         |         |         |         |
|---|----------|---------|---------|---------|---------|---------|
|   | 25       | 15      | 10      | 05      | 03      | 01      |
| Fraction of total mass of screening residue, %            |          |         |         |         |         |         |
| №0063   | 2,0      | 0,5     |         |         |         |         |
| №0045   | 5,0      | 2,0     | 0,1     | 0,05    | 0,03    | 0,01    |
| Top cut, %, (Microsizer-201A):                            |          |         |         |         |         |         |
| less 20 µm  | 45       | 70      | 95      | 98      |         |         |
| less 10 µm  | 12       | 30      | 50      | 70      | 95      |         |
| less 5 µm   | 7        | 10      | 20      | 50      | 70      | 95      |
| less 2 µm   | 1        | 3       | 5       | 15      | 30      | 60      |
| Average particle size distribution, µm (Microsizer-201A): |          |         |         |         |         |         |
| medium (D <sub>50</sub> )                                 | 25       | 15      | 10      | 5       | 3       | 1,8     |
| maximum (D <sub>98</sub> )                                | 80       | 60      | 35      | 25      | 18      | 12      |
| minimum (D <sub>10</sub> )                                | 10       | 5       | 3       | 2,5     | 1       | 0,8     |
| Chromatic preferences:                                    |          |         |         |         |         |         |
| whiteness CIELab (ISO 787/1, C/2°), %                     | 96       | 97      | 97,5    | 97,5    | 97,5    | 97      |
| lightness (L) no CIELab, %                                | 97       | 98      | 98,5    | 98,5    | 98,5    | 98      |
| brightness DIN 53163 (R <sub>v</sub> , C/2°), %           | 92       | 94      | 95      | 95      | 95      | 92      |
| yellowness ASTM D1925-70 (C/2°), %                        | 8        | 4,5     | 3,5     | 3,5     | 3,5     | 3,5     |
| brightness ISO 2470 (R <sub>457</sub> ), %                | 88       | 93      | 94      | 94      | 94      | 93      |
| whiteness ISO 11475 (D <sub>65</sub> /10°), %             | 79       | 84      | 87      | 87      | 87      | 86      |
| Oil absorption (ISO 787/5, g/100 g)                       | 22       | 24      | 25      | 28      | 32      | 35      |
| DOP-absorption (ISO 787/5, g/100 g)                       | 32       | 33      | 35      | 37      | 39      | 44      |
| Density (ISO 787/11), g/cm³                               | 1,0÷1,2  | 0,8÷1,0 | 0,6÷0,8 | 0,5÷0,7 | 0,4÷0,6 | 0,3÷0,5 |

**Package:**

- Plastic bags 250 , 1000 kg;
- Valvular paper bags 10 , 50 kg on pallets (up to 1200 kg) using special protective materials for transportation.

The technical data listed corresponds to actual production regulations and are confirmed by regular tests made by the manufacturer. It is typical to the maximum, but can not be construed as an obligatory specification. It is subject of testing if intolerable transportation or after-sale storage conditions have been supposed. This technical information can be corrected without any prior notices because of new production technologies or state regulations.

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