

P

## PORTLAND CEMENT

## CEM I 42.5 R



. Certificate of compliance #319 is valid until 12.11.2026

| Parameters                              | EN 197-1                | Actually                     |
|-----------------------------------------|-------------------------|------------------------------|
| Chemical make-up                        |                         |                              |
| Heating dissipation                     | No more than 5 %        |                              |
| SiO <sub>2</sub>                        | " "                     | 2.0 – 4.5 %                  |
| Al <sub>2</sub> O <sub>3</sub>          | " "                     | 20.0-24%                     |
| Fe <sub>2</sub> O <sub>3</sub>          | " "                     | 5-7.0%                       |
| CaO                                     | " "                     | 2.9-3.8%                     |
| MgO                                     | No more than 5 %        | 57.0-61.0%                   |
| SO <sub>3</sub>                         | 1 % – 3.5 %             | 1.0-2.0%                     |
| Alkali                                  | <1%                     | 2,3-3,5%                     |
|                                         |                         | 0.6÷0.8%                     |
| Clinker make-up                         |                         |                              |
| C <sub>3</sub> S                        | not normalized          | 55.0 – 68.0%                 |
| C <sub>2</sub> S                        | " "                     | 16.0 – 22.0 %                |
| C <sub>3</sub> A                        | " "                     | 7.0 _ 10.0 %                 |
| C <sub>4</sub> AF                       | " "                     | 9 – 13 %                     |
| MgO                                     | No more than 5 %        | 1.5-2.8%                     |
| Physical parameters                     |                         |                              |
| Grinding rate (residue 008 on strainer) | No more than 15 %       | 0                            |
| Binding terms:                          |                         |                              |
| Initial                                 | No earlier than 60 min. | 1.2 – 2.0 h,                 |
| End                                     | No more than 10 h.      | 3.0 – 3.50 h.                |
| Steady expansion                        | ≤ 10mm                  |                              |
| Water consumption                       | Not normalized          | 0.1-0.15 mm                  |
| Density                                 | Not normalized          | 30.0 – 31.5 %                |
| Specific surface                        | Not normalized          | 3,06 – 3,15g/cm <sup>3</sup> |
|                                         |                         | 4000-4300cm <sup>2</sup> /g  |
| Breaking point                          |                         |                              |
| Compressing:                            |                         |                              |
| After 2 days                            | No less than 20 Mpa     | 25.0-27.0 Mpa                |
| After 28 days                           | No less than 42.5 Mpa   | 49.0-52.0 Mpa                |

Plant quality manager

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