

## Statistické hodnocení kvality cementu dle EN 197-1

**Cement: CEM II/B-M (V-LL) 32,5 R**

Období: Od: **01.10.2025**

Závod: **Mokrá**

Do: **31.10.2025**

### Mechanické a fyzikální vlastnosti

| Datum         | Měrný povrch           | Normální konzistence | Počátek tuhnutí | Konec tuhnutí | Objemová stálost | Pevnost v tlaku |             | Pevnost v ohybu |            |
|---------------|------------------------|----------------------|-----------------|---------------|------------------|-----------------|-------------|-----------------|------------|
|               |                        |                      |                 |               |                  | 2 dny           | 28 dní      | 2 dny           | 28 dní     |
| Jednotka      | [ m <sup>2</sup> /kg ] | [ % ]                | [ min ]         | [ min ]       | [ mm ]           | [ MPa ]         | [ MPa ]     | [ MPa ]         | [ MPa ]    |
| 07.10.2025    | 547                    | 31,6                 | 223             | 306           | 0,5              | 20,5            | 49,8        | 4,3             | 8,9        |
| 09.10.2025    | 551                    | 31,4                 | 222             | 317           | 1,0              | 18,2            | 46,9        | 4,0             | 8,2        |
| 15.10.2025    | 533                    | 31,2                 | 234             | 332           | 0,5              | 19,1            | 44,6        | 4,4             | 8,1        |
| 16.10.2025    | 530                    | 31,6                 | 201             | 300           | 0,0              | 21,1            | 45,1        | 4,3             | 8,0        |
| 20.10.2025    | 557                    | 31,6                 | 219             | 306           | 1,0              | 18,7            | 47,4        | 4,0             | 8,0        |
| 22.10.2025    | 525                    | 31,6                 | 211             | 330           | 0,5              | 22,1            | 48,7        | 4,4             | 8,6        |
| 27.10.2025    | 553                    | 31,6                 | 222             | 298           | 0,5              | 18,3            | 44,2        | 4,3             | 8,0        |
| 28.10.2025    | 536                    | 31,0                 | 219             | 309           | 1,0              | 19,5            | 47,4        | 4,1             | 7,6        |
| ---           | ---                    | ---                  | ---             | ---           | ---              | ---             | ---         | ---             | ---        |
| ---           | ---                    | ---                  | ---             | ---           | ---              | ---             | ---         | ---             | ---        |
| <b>Průměr</b> | <b>542</b>             | <b>31,5</b>          | <b>219</b>      | <b>312</b>    | <b>0,6</b>       | <b>19,7</b>     | <b>46,8</b> | <b>4,2</b>      | <b>8,2</b> |
| Max           | 557                    | 31,6                 | 234             | 332           | 1,0              | 22,1            | 49,8        | 4,4             | 8,9        |
| Min           | 525                    | 31,0                 | 201             | 298           | 0,0              | 18,2            | 44,2        | 4,0             | 7,6        |
| Std           | 11                     | 0,2                  | 9               | 12            | 0,3              | 1,3             | 1,9         | 0,1             | 0,4        |
| Četnost       | 8                      | 8                    | 8               | 8             | 8                | 8               | 8           | 8               | 8          |
| Norma-min     |                        |                      | 75              |               |                  | 10,0            | 32,5        |                 |            |
| Norma-max     |                        |                      |                 |               | 10               |                 | 52,5        |                 |            |

### Chemické vlastnosti

| Datum         | SiO <sub>2</sub> | Al <sub>2</sub> O <sub>3</sub> | Fe <sub>2</sub> O <sub>3</sub> | CaO          | MgO         | K <sub>2</sub> O | Na <sub>2</sub> O | Obsah síranů (jako SO <sub>3</sub> ) | Na <sub>2</sub> O ekv. | Obsah Cl     | Ztráta žháním | Nerostný zbytek | Vodorozpuštěný chrom (Cr <sup>6+</sup> ) | C <sub>3</sub> A ve slínku |
|---------------|------------------|--------------------------------|--------------------------------|--------------|-------------|------------------|-------------------|--------------------------------------|------------------------|--------------|---------------|-----------------|------------------------------------------|----------------------------|
| Jednotka      | [ % ]            | [ % ]                          | [ % ]                          | [ % ]        | [ % ]       | [ % ]            | [ % ]             | [ % ]                                | [ % ]                  | [ % ]        | [ % ]         | [ % ]           | [ ppm ]                                  | [ % ]                      |
| 07.10.2025    | 22,06            | 7,49                           | 3,35                           | 51,93        | 1,32        | 0,75             | 0,12              | 2,70                                 | 0,61                   | 0,043        | ---           | ---             | 0,00                                     | 7,11                       |
| 09.10.2025    | 22,34            | 7,85                           | 3,44                           | 51,07        | 1,31        | 0,79             | 0,12              | 2,73                                 | 0,64                   | 0,046        | ---           | ---             | ---                                      | 8,31                       |
| 15.10.2025    | 22,24            | 7,53                           | 3,38                           | 52,29        | 1,39        | 0,76             | 0,13              | 2,75                                 | 0,63                   | 0,048        | ---           | ---             | ---                                      | 7,11                       |
| 16.10.2025    | 22,01            | 7,44                           | 3,34                           | 52,05        | 1,39        | 0,75             | 0,13              | 2,72                                 | 0,62                   | 0,050        | ---           | ---             | 0,05                                     | 7,11                       |
| 20.10.2025    | 22,08            | 7,75                           | 3,47                           | 50,34        | 1,26        | 0,78             | 0,12              | 2,69                                 | 0,63                   | 0,044        | ---           | ---             | ---                                      | 8,31                       |
| 22.10.2025    | 22,37            | 7,56                           | 3,36                           | 52,20        | 1,39        | 0,78             | 0,13              | 2,74                                 | 0,64                   | 0,047        | ---           | ---             | ---                                      | 8,31                       |
| 27.10.2025    | 22,38            | 7,85                           | 3,48                           | 51,10        | 1,29        | 0,79             | 0,12              | 2,74                                 | 0,64                   | 0,045        | ---           | ---             | ---                                      | 8,31                       |
| 28.10.2025    | 22,17            | 7,47                           | 3,35                           | 51,97        | 1,39        | 0,76             | 0,12              | 2,71                                 | 0,62                   | 0,048        | ---           | ---             | ---                                      | 8,31                       |
| ---           | ---              | ---                            | ---                            | ---          | ---         | ---              | ---               | ---                                  | ---                    | ---          | ---           | ---             | ---                                      | ---                        |
| ---           | ---              | ---                            | ---                            | ---          | ---         | ---              | ---               | ---                                  | ---                    | ---          | ---           | ---             | ---                                      | ---                        |
| <b>Průměr</b> | <b>22,21</b>     | <b>7,62</b>                    | <b>3,40</b>                    | <b>51,62</b> | <b>1,34</b> | <b>0,77</b>      | <b>0,12</b>       | <b>2,72</b>                          | <b>0,63</b>            | <b>0,046</b> | <b>---</b>    | <b>---</b>      | <b>0,03</b>                              | <b>7,86</b>                |
| Max           | 22,38            | 7,85                           | 3,48                           | 52,29        | 1,39        | 0,79             | 0,13              | 2,75                                 | 0,64                   | 0,050        | ---           | ---             | 0,00                                     | 8,31                       |
| Min           | 22,01            | 7,44                           | 3,34                           | 50,34        | 1,26        | 0,75             | 0,12              | 2,69                                 | 0,61                   | 0,043        | ---           | ---             | 0,00                                     | 7,11                       |
| Std           | 0,14             | 0,16                           | 0,05                           | 0,65         | 0,05        | 0,02             | 0,00              | 0,02                                 | 0,01                   | 0,002        | ---           | ---             | 0,00                                     | 0,58                       |
| Četnost       | 8                | 8                              | 8                              | 8            | 8           | 8                | 8                 | 8                                    | 8                      | 8            | 0             | 0               | 1                                        | 8                          |
| Norma-min     |                  |                                |                                |              |             |                  |                   |                                      |                        |              |               |                 |                                          |                            |
| Norma-max     |                  |                                |                                |              |             |                  |                   | 3,5                                  |                        | 0,10         |               |                 |                                          |                            |

V Mokré dne : 08.12.2025

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