

## Statistické hodnocení kvality cementu dle EN 197-1

**Cement: CEM II/A-LL 42,5 R**

Období: Od: **01.06.2025**

Závod: **Mokrá**

Do: **30.06.2025**

### Mechanické a fyzikální vlastnosti

| Datum         | Měrný povrch           | Normální konzistence | Počátek tuhnutí | Konec tuhnutí | Objemová stálost | Pevnost v tlaku |             | Pevnost v ohybu |            |
|---------------|------------------------|----------------------|-----------------|---------------|------------------|-----------------|-------------|-----------------|------------|
|               |                        |                      |                 |               |                  | 2 dny           | 28 dnů      | 2 dny           | 28 dnů     |
| Jednotka      | [ m <sup>2</sup> /kg ] | [ % ]                | [ min ]         | [ min ]       | [ mm ]           | [ MPa ]         | [ MPa ]     | [ MPa ]         | [ MPa ]    |
| 19.06.2025    | 511                    | 28,4                 | 200             | 273           | 1,0              | 28,5            | 56,6        | 5,7             | 8,4        |
| 23.06.2025    | 494                    | 28,2                 | 178             | 265           | 1,0              | 30,0            | 57,7        | 5,6             | 8,3        |
| 24.06.2025    | 520                    | 28,8                 | 180             | 279           | 1,0              | 31,9            | 55,3        | 6,3             | 8,2        |
| 25.06.2025    | 513                    | 28,6                 | 184             | 281           | 1,0              | 30,2            | 54,8        | 5,7             | 8,2        |
| 26.06.2025    | 509                    | 28,6                 | 179             | 283           | 1,0              | 29,1            | 54,6        | 5,5             | 8,0        |
| 30.06.2025    | 507                    | 28,4                 | 183             | 264           | 0,5              | 28,8            | 53,3        | 5,5             | 8,2        |
| ---           | ---                    | ---                  | ---             | ---           | ---              | ---             | ---         | ---             | ---        |
| ---           | ---                    | ---                  | ---             | ---           | ---              | ---             | ---         | ---             | ---        |
| ---           | ---                    | ---                  | ---             | ---           | ---              | ---             | ---         | ---             | ---        |
| <b>Průměr</b> | <b>509</b>             | <b>28,5</b>          | <b>184</b>      | <b>274</b>    | <b>0,9</b>       | <b>29,8</b>     | <b>55,4</b> | <b>5,7</b>      | <b>8,2</b> |
| Max           | 520                    | 28,8                 | 200             | 283           | 1,0              | 31,9            | 57,7        | 6,3             | 8,4        |
| Min           | 494                    | 28,2                 | 178             | 264           | 0,5              | 28,5            | 53,3        | 5,5             | 8,0        |
| Std           | 8                      | 0,2                  | 7               | 7             | 0,2              | 1,2             | 1,4         | 0,3             | 0,1        |
| Četnost       | 6                      | 6                    | 6               | 6             | 6                | 6               | 6           | 6               | 6          |
| Norma-min     |                        |                      | 60              |               |                  | 20,0            | 42,5        |                 |            |
| Norma-max     |                        |                      |                 |               | 10               |                 | 62,5        |                 |            |

### 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 | Vodorozpuštný chrom (Cr <sup>6+</sup> ) | C <sub>3</sub> A ve slínku |
|---------------|------------------|--------------------------------|--------------------------------|--------------|-------------|------------------|-------------------|--------------------------------------|------------------------|--------------|---------------|-----------------|-----------------------------------------|----------------------------|
| Jednotka      | [ % ]            | [ % ]                          | [ % ]                          | [ % ]        | [ % ]       | [ % ]            | [ % ]             | [ % ]                                | [ % ]                  | [ % ]        | [ % ]         | [ % ]           | [ ppm ]                                 | [ % ]                      |
| 19.06.2025    | 18,21            | 4,14                           | 3,09                           | 62,35        | 1,50        | 0,69             | 0,12              | 3,03                                 | 0,57                   | 0,052        | 7,38          | 1,37            | ---                                     | 5,69                       |
| 23.06.2025    | 18,37            | 4,10                           | 3,15                           | 63,20        | 1,47        | 0,68             | 0,12              | 3,10                                 | 0,57                   | 0,044        | ---           | ---             | ---                                     | 5,69                       |
| 24.06.2025    | 17,98            | 4,08                           | 3,11                           | 62,41        | 1,43        | 0,67             | 0,12              | 3,05                                 | 0,56                   | 0,042        | 6,80          | 1,13            | ---                                     | 5,69                       |
| 25.06.2025    | 17,92            | 4,04                           | 3,09                           | 62,55        | 1,47        | 0,69             | 0,12              | 3,02                                 | 0,57                   | 0,050        | ---           | ---             | ---                                     | 5,69                       |
| 26.06.2025    | 18,00            | 4,05                           | 3,10                           | 62,96        | 1,47        | 0,69             | 0,12              | 3,06                                 | 0,57                   | 0,048        | ---           | ---             | ---                                     | 5,69                       |
| 30.06.2025    | 18,00            | 4,04                           | 3,10                           | 62,68        | 1,45        | 0,67             | 0,12              | 3,07                                 | 0,56                   | 0,044        | ---           | ---             | ---                                     | 5,69                       |
| ---           | ---              | ---                            | ---                            | ---          | ---         | ---              | ---               | ---                                  | ---                    | ---          | ---           | ---             | ---                                     | ---                        |
| ---           | ---              | ---                            | ---                            | ---          | ---         | ---              | ---               | ---                                  | ---                    | ---          | ---           | ---             | ---                                     | ---                        |
| ---           | ---              | ---                            | ---                            | ---          | ---         | ---              | ---               | ---                                  | ---                    | ---          | ---           | ---             | ---                                     | ---                        |
| <b>Průměr</b> | <b>18,08</b>     | <b>4,08</b>                    | <b>3,11</b>                    | <b>62,69</b> | <b>1,47</b> | <b>0,68</b>      | <b>0,12</b>       | <b>3,05</b>                          | <b>0,57</b>            | <b>0,047</b> | <b>7,09</b>   | <b>1,25</b>     | <b>---</b>                              | <b>5,69</b>                |
| Max           | 18,37            | 4,14                           | 3,15                           | 63,20        | 1,50        | 0,69             | 0,12              | 3,10                                 | 0,57                   | 0,052        | 7,38          | 1,37            | ---                                     | 5,69                       |
| Min           | 17,92            | 4,04                           | 3,09                           | 62,35        | 1,43        | 0,67             | 0,12              | 3,02                                 | 0,56                   | 0,042        | 6,80          | 1,13            | ---                                     | 5,69                       |
| Std           | 0,16             | 0,04                           | 0,02                           | 0,30         | 0,02        | 0,01             | 0,00              | 0,03                                 | 0,01                   | 0,004        | 0,29          | 0,12            | ---                                     | 0,00                       |
| Četnost       | 6                | 6                              | 6                              | 6            | 6           | 6                | 6                 | 6                                    | 6                      | 6            | 2             | 2               | 0                                       | 6                          |
| Norma-min     |                  |                                |                                |              |             |                  |                   |                                      |                        |              |               |                 |                                         |                            |
| Norma-max     |                  |                                |                                |              |             |                  |                   | 4,0                                  |                        | 0,10         | 5,0           | 5,0             |                                         |                            |

V Mokré dne : 08.08.2025

Ing. Vojtěch Smutný - vedoucí útvaru řízení jakosti

Technická podpora prodeje:

e-mail: [technicka.podpora@heidelbergmaterials.com](mailto:technicka.podpora@heidelbergmaterials.com)

tel: +420 544 122 544



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 **Heidelberg  
Materials**  
Heidelberg Materials CZ, a.s.  
Mokrá 359, 664 04 Mokrá-Horákov  
IČ: 26209578, DIČ: CZ26209578