

Českomoravský cement, a.s.
Mokrá 359
664 04 Mokrá-Horákov

Statistické hodnocení kvality cementu

dle EN 197-1

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

Období: Od: **01.12.2022**

Závod: **Mokrá**

Do: **31.12.2022**

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 ² /kg] | [%] | [min] | [min] | [mm] | [MPa] | [MPa] | [MPa] | [MPa] |
| 01.12.2022 | 502 | 31,0 | 280 | 385 | 0,5 | 18,8 | 45,5 | 4,0 | 7,9 |
| 05.12.2022 | 510 | 30,2 | 240 | 345 | 1,0 | 18,5 | 44,6 | 3,9 | 7,7 |
| 08.12.2022 | 505 | 31,4 | 231 | 341 | 1,0 | 19,1 | 43,2 | 4,1 | 7,7 |
| 13.12.2022 | 503 | 31,0 | 280 | 395 | 1,0 | 18,1 | 43,7 | 4,0 | 7,5 |
| 15.12.2022 | 497 | 31,2 | 267 | 391 | 0,5 | 18,4 | 44,3 | 3,9 | 7,7 |
| 20.12.2022 | 510 | 30,6 | 308 | 417 | 0,5 | 18,6 | 44,1 | 3,8 | 7,5 |
| 21.12.2022 | 511 | 30,8 | 271 | 376 | 1,0 | 18,9 | 43,8 | 3,9 | 7,6 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Průměr | 505 | 30,9 | 268 | 379 | 0,8 | 18,6 | 44,2 | 4,0 | 7,7 |
| Max | 511 | 31,4 | 308 | 417 | 1,0 | 19,1 | 45,5 | 4,1 | 7,9 |
| Min | 497 | 30,2 | 231 | 341 | 0,5 | 18,1 | 43,2 | 3,8 | 7,5 |
| Std | 5 | 0,4 | 24 | 25 | 0,2 | 0,3 | 0,7 | 0,1 | 0,1 |
| Četnost | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Norma-min | | | 75 | | | 10,0 | 32,5 | | |
| Norma-max | | | | | 10 | | 52,5 | | |

Chemické vlastnosti

| Datum | SiO ₂ | Al ₂ O ₃ | Fe ₂ O ₃ | CaO | MgO | K ₂ O | Na ₂ O | Obsah síranů (jako SO ₃) | Na ₂ O ekv. | Obsah Cl | Ztráta ziháním | Nerozpuštěný zbytek | Vodorozpuštěný chrom (Cr ⁶⁺) | C ₃ A ve slině |
|---------------|------------------|--------------------------------|--------------------------------|--------------|-------------|------------------|-------------------|--------------------------------------|------------------------|--------------|----------------|---------------------|--|---------------------------|
| Jednotka | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [ppm] | [%] |
| 01.12.2022 | 20,65 | 7,42 | 3,15 | 51,24 | 1,19 | 0,78 | 0,17 | 2,37 | 0,68 | 0,047 | --- | --- | --- | 6,65 |
| 05.12.2022 | 20,51 | 7,32 | 3,16 | 50,82 | 1,19 | 0,82 | 0,16 | 2,34 | 0,70 | 0,066 | --- | --- | 0,00 | 6,22 |
| 08.12.2022 | 20,63 | 7,42 | 3,19 | 51,36 | 1,17 | 0,81 | 0,17 | 2,37 | 0,70 | 0,060 | --- | --- | --- | 6,22 |
| 13.12.2022 | 20,43 | 7,64 | 3,21 | 50,51 | 1,16 | 0,84 | 0,15 | 2,40 | 0,70 | 0,072 | --- | --- | 0,00 | 6,61 |
| 15.12.2022 | 20,56 | 7,32 | 3,17 | 50,66 | 1,18 | 0,81 | 0,14 | 2,34 | 0,67 | 0,075 | --- | --- | 0,00 | 6,61 |
| 20.12.2022 | 20,26 | 7,68 | 3,20 | 49,89 | 1,12 | 0,84 | 0,15 | 2,34 | 0,70 | 0,066 | --- | --- | --- | 6,61 |
| 21.12.2022 | 20,36 | 7,70 | 3,20 | 50,05 | 1,12 | 0,84 | 0,15 | 2,35 | 0,70 | 0,065 | --- | --- | --- | 6,61 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Průměr | 20,49 | 7,50 | 3,18 | 50,65 | 1,16 | 0,82 | 0,16 | 2,36 | 0,70 | 0,064 | --- | --- | --- | 6,50 |
| Max | 20,65 | 7,70 | 3,21 | 51,36 | 1,19 | 0,84 | 0,17 | 2,40 | 0,70 | 0,075 | --- | --- | 0,000 | 6,65 |
| Min | 20,26 | 7,32 | 3,15 | 49,89 | 1,12 | 0,78 | 0,14 | 2,34 | 0,67 | 0,047 | --- | --- | 0,000 | 6,22 |
| Std | 0,13 | 0,16 | 0,02 | 0,51 | 0,03 | 0,02 | 0,01 | 0,02 | 0,01 | 0,008 | --- | --- | 0,000 | 0,18 |
| Četnost | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 3 | 7 |
| Norma-min | | | | | | | | | | | | | | |
| Norma-max | | | | | | | | 3,5 | | 0,10 | | | | |

V Mokré dne : 09.02.2023

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