

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

Statistické hodnocení kvality cementu dle EN 197-1

Cement: CEM I 42,5 R

Období: Od: **01.03.2021**

Závod: **Mokrá**

Do: **31.03.2021**

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] |
| 01.03.2021 | 419 | 27.0 | 200 | 256 | 1.0 | 31.5 | 60.7 | 6.4 | 9.3 |
| 03.03.2021 | 411 | 27.6 | 208 | 272 | 1.0 | 31.9 | 58.3 | 6.7 | 9.3 |
| 08.03.2021 | 391 | 27.4 | 178 | 285 | 1.0 | 28.9 | 57.1 | 6.1 | 8.6 |
| 10.03.2021 | 398 | 27.6 | 200 | 275 | 1.0 | 31.1 | 60.1 | 6.4 | 9.6 |
| 15.03.2021 | 383 | 26.6 | 214 | 277 | 0.0 | 28.3 | 57.4 | 6.1 | 8.7 |
| 16.03.2021 | 413 | 26.4 | 200 | 268 | 0.5 | 30.0 | 61.2 | 6.2 | 9.6 |
| 22.03.2021 | 409 | 26.2 | 206 | 279 | 0.5 | 30.9 | 57.1 | 6.4 | 9.0 |
| 25.03.2021 | 409 | 26.2 | 203 | 274 | 0.5 | 29.6 | 57.3 | 6.5 | 9.0 |
| 27.03.2021 | 377 | 25.8 | 188 | 254 | 0.5 | 27.8 | 57.1 | 6.1 | 9.0 |
| 29.03.2021 | 392 | 26.6 | 188 | 243 | 0.0 | 30.0 | 57.1 | 6.5 | 9.2 |
| Průměr | 400 | 26.7 | 199 | 268 | 0.6 | 30.0 | 58.3 | 6.3 | 9.1 |
| Max | 419 | 27.6 | 214 | 285 | 1.0 | 31.9 | 61.2 | 6.7 | 9.6 |
| Min | 377 | 25.8 | 178 | 243 | 0.0 | 27.8 | 57.1 | 6.1 | 8.6 |
| Std | 13 | 0.6 | 10 | 12 | 0.4 | 1.3 | 1.6 | 0.2 | 0.3 |
| Četnost | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Norma-min | | | 60 | | | 20.0 | 42.5 | | |
| Norma-max | | | | | 10 | | 62.5 | | |

Chemické vlastnosti

| Datum | SiO ₂ | Al ₂ O ₃ | Fe ₂ O ₃ | CaO | MgO | K ₂ O | Na ₂ O | Obsah siranů (jako SO ₃) | Na ₂ O ekv. | Obsah Cl | Ztráta žháním | Nerozpuštěný zbytek | Vodorozpuštěný chrom (Cr ⁶⁺) | C ₃ A ve slínku |
|---------------|------------------|--------------------------------|--------------------------------|--------------|-------------|------------------|-------------------|--------------------------------------|------------------------|--------------|---------------|---------------------|--|----------------------------|
| Jednotka | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [ppm] | [%] |
| 01.03.2021 | 19.36 | 4.67 | 3.43 | 63.12 | 1.37 | 0.74 | 0.23 | 3.02 | 0.72 | 0.045 | 3.22 | 0.66 | --- | 6.31 |
| 03.03.2021 | 19.37 | 4.67 | 3.33 | 62.71 | 1.41 | 0.80 | 0.22 | 3.02 | 0.75 | 0.068 | --- | --- | --- | 6.31 |
| 08.03.2021 | 19.55 | 4.75 | 3.22 | 62.72 | 1.44 | 0.81 | 0.24 | 3.02 | 0.77 | 0.068 | 3.35 | 0.68 | --- | 6.63 |
| 10.03.2021 | 19.50 | 4.73 | 3.22 | 62.86 | 1.44 | 0.82 | 0.24 | 3.02 | 0.78 | 0.078 | --- | --- | --- | 6.95 |
| 15.03.2021 | 19.77 | 4.75 | 3.23 | 63.21 | 1.48 | 0.73 | 0.23 | 2.90 | 0.71 | 0.057 | 3.09 | 0.42 | --- | 7.11 |
| 16.03.2021 | 19.23 | 4.66 | 3.41 | 63.12 | 1.37 | 0.76 | 0.23 | 3.12 | 0.73 | 0.048 | --- | --- | --- | 6.60 |
| 22.03.2021 | 19.30 | 4.60 | 3.25 | 62.86 | 1.37 | 0.88 | 0.23 | 3.09 | 0.81 | 0.062 | 3.54 | 0.74 | --- | 6.13 |
| 25.03.2021 | 19.28 | 4.62 | 3.15 | 63.22 | 1.36 | 0.82 | 0.21 | 3.05 | 0.75 | 0.067 | --- | --- | --- | 6.10 |
| 27.03.2021 | 19.60 | 4.65 | 3.35 | 62.70 | 1.43 | 0.82 | 0.23 | 3.00 | 0.77 | 0.072 | 3.49 | 0.62 | --- | 6.94 |
| 29.03.2021 | 19.68 | 4.67 | 3.36 | 62.67 | 1.43 | 0.83 | 0.25 | 3.03 | 0.80 | 0.066 | --- | --- | --- | 6.94 |
| Průměr | 19.46 | 4.68 | 3.30 | 62.92 | 1.41 | 0.80 | 0.23 | 3.03 | 0.76 | 0.063 | 3.34 | 0.62 | --- | 6.60 |
| Max | 19.77 | 4.75 | 3.43 | 63.22 | 1.48 | 0.88 | 0.25 | 3.12 | 0.81 | 0.078 | 3.54 | 0.74 | --- | 7.11 |
| Min | 19.23 | 4.60 | 3.15 | 62.67 | 1.36 | 0.73 | 0.21 | 2.90 | 0.71 | 0.045 | 3.09 | 0.42 | --- | 6.10 |
| Std | 0.17 | 0.05 | 0.09 | 0.21 | 0.04 | 0.04 | 0.01 | 0.05 | 0.03 | 0.010 | 0.17 | 0.11 | --- | 0.35 |
| Četnost | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 5 | 5 | 0 | 10 |
| Norma-min | | | | | | | | | | | | | | |
| Norma-max | | | | | | | | 4.0 | | 0.10 | 5.0 | 5.0 | | |

V Mokré dne: 11.05.2021

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