

Statistické hodnocení kvality cementu

dle EN 197-1 / ČSN 73 6123-1*

Cement: **CEM I 42,5 R (sc)**

Období: Od: **01.05.2024**

Závod: **Mokrá**

Do: **31.05.2024**

Mechanické a fyzikální vlastnosti

| Datum | Měrný povrch [m ² /kg] | Normální konzistence [%] | Počátek tuhnutí [min] | Konec tuhnutí [min] | Objemová stálost [mm] | 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] |
| 05.05.2024 | 265 | 27,8 | 225 | 357 | 1,0 | 28,1 | 60,9 | 5,1 | 9,4 |
| 08.05.2024 | 258 | 27,8 | 214 | 340 | 1,0 | 27,9 | 61,4 | 5,5 | 9,5 |
| 13.05.2024 | 266 | 27,6 | 193 | 293 | 1,0 | 27,2 | 61,7 | 4,9 | 9,9 |
| 16.05.2024 | 270 | 28,0 | 234 | 356 | 1,0 | 27,2 | 60,2 | 5,1 | 9,9 |
| 20.05.2024 | 265 | 27,0 | 203 | 297 | 0,5 | 28,6 | 61,6 | 5,1 | 9,0 |
| 22.05.2024 | 278 | 27,0 | 215 | 308 | 0,5 | 26,2 | 60,0 | 5,5 | 9,9 |
| 27.05.2024 | 272 | 28,0 | 200 | 310 | 0,5 | 26,2 | 60,0 | 5,2 | 9,2 |
| 29.05.2024 | 287 | 28,0 | 190 | 321 | 0,5 | 26,6 | 59,4 | 5,5 | 9,2 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Průměr | 270 | 27,7 | 209 | 323 | 0,8 | 27,2 | 60,6 | 5,2 | 9,5 |
| Max | 287 | 28,0 | 234 | 357 | 1,0 | 28,6 | 61,7 | 5,5 | 9,9 |
| Min | 258 | 27,0 | 190 | 293 | 0,5 | 26,2 | 59,4 | 4,9 | 9,0 |
| Std | 8 | 0,4 | 14 | 24 | 0,3 | 0,8 | 0,8 | 0,2 | 0,3 |
| Četnost | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Norma-min | | | 60/90* | | | 20,0 | 42,5 | | |
| Norma-max | 350* | | | | 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 síranů (jako SO ₃) | Na ₂ O ekv. | Obsah Cl | Ztráta žháním | Nerozpuštěný zbytek | v CaO | Vodorozpuštěný chrom (Cr ⁶⁺) | C ₃ A ve slině |
|---------------|------------------|--------------------------------|--------------------------------|--------------|-------------|------------------|-------------------|-----------------------------------------|------------------------|--------------|---------------|------------------------|------------|---------------------------------------------|---------------------------|
| Jednotka | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [%] | [ppm] | [%] |
| 05.05.2024 | 20,25 | 4,76 | 3,34 | 64,36 | 1,37 | 0,79 | 0,10 | 3,29 | 0,62 | 0,023 | --- | --- | --- | --- | 6,67 |
| 08.05.2024 | 20,08 | 4,73 | 3,39 | 64,89 | 1,31 | 0,80 | 0,10 | 3,16 | 0,63 | 0,021 | --- | --- | --- | --- | 6,67 |
| 13.05.2024 | 20,31 | 4,81 | 3,41 | 64,77 | 1,26 | 0,72 | 0,10 | 3,13 | 0,57 | 0,019 | 1,46 | 0,14 | --- | --- | 7,02 |
| 16.05.2024 | 20,30 | 4,92 | 3,40 | 64,41 | 1,27 | 0,72 | 0,10 | 3,13 | 0,57 | 0,021 | --- | --- | --- | --- | 7,02 |
| 20.05.2024 | 20,28 | 4,83 | 3,39 | 64,44 | 1,27 | 0,72 | 0,10 | 3,07 | 0,57 | 0,020 | 1,49 | 0,12 | --- | --- | 6,80 |
| 22.05.2024 | 20,14 | 4,77 | 3,40 | 64,95 | 1,19 | 0,70 | 0,09 | 3,19 | 0,55 | 0,017 | --- | --- | --- | --- | 6,98 |
| 27.05.2024 | 20,61 | 4,92 | 3,37 | 64,50 | 1,36 | 0,71 | 0,11 | 3,06 | 0,58 | 0,018 | --- | --- | --- | --- | 6,99 |
| 29.05.2024 | 20,23 | 4,82 | 3,36 | 64,32 | 1,31 | 0,70 | 0,10 | 3,07 | 0,56 | 0,020 | --- | --- | --- | --- | 6,99 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Průměr | 20,28 | 4,82 | 3,38 | 64,58 | 1,29 | 0,73 | 0,10 | 3,14 | 0,58 | 0,020 | 1,48 | 0,13 | --- | --- | 6,89 |
| Max | 20,61 | 4,92 | 3,41 | 64,95 | 1,37 | 0,80 | 0,11 | 3,29 | 0,63 | 0,023 | 1,49 | 0,14 | --- | --- | 7,02 |
| Min | 20,08 | 4,73 | 3,34 | 64,32 | 1,19 | 0,70 | 0,09 | 3,06 | 0,55 | 0,017 | 1,46 | 0,12 | --- | --- | 6,67 |
| Std | 0,15 | 0,07 | 0,02 | 0,23 | 0,05 | 0,04 | 0,01 | 0,07 | 0,03 | 0,002 | 0,01 | 0,01 | --- | --- | 0,14 |
| Četnost | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 2 | 2 | 0 | 0 | 8 |
| Norma-min | | | | | | | | | | | | | | | |
| Norma-max | | | | | | | | 4,0 | 0,80* | 0,10 | 5,0/3,0* | 5,0 | | | 8,0* |

V Mokré dne : 10.07.2024

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