# گزارش ماهانه کنترل کیفیت سیمان ممتازان کرمان

## نوع سیمان: پرتلند تیپ ۲

شماره مدرک: LA-F-023-02

تاریخ: دی ۱۴۰۰



| Day | | Chemical Compositions & Phases % | | | | | | | | | | | | | | | | Physical Test | | | | | | | | | | | | | | | Lab.Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | Fineness | | Setting time | | Soundness | | Compressive Strength (kg/cm²) | | | | | Bend Strength (kg/cm²) | | | |
| | | IR | $SiO_2$ | $Al_2O_3$ | $Fe_2O_3$ | CaO | MgO | $SO_3$ | $K_2O$ | $Na_2O$ | Cl | LOSS | C3S | C2S | C3A | C4AF | C4AF +2C3A | F.CaO | Sieve 90 mic | Blaine (cm²/gr) | INIT (min) | FINAL (min) | LEACHTELIER (mm) | Auto Clave (%) | 1 DAY | 2 DAYS | 3 DAYS | 7 DAYS | 28 DAYS | 2 DAYS | 7 DAYS | 28 DAYS | |
| 1 | S | 0.41 | 20.82 | 4.48 | 3.58 | 63.78 | 1.30 | 2.78 | 0.60 | 0.68 | 0.019 | 1.87 | 58.3 | 15.7 | 5.8 | 10.9 | 22.5 | 2.10 | 2.1 | 3140 | 125 | 175 | 1.4 | 0.20 | - | 225 | 279 | 355 | 451 | 44 | 61 | 73 | I-CE-00-463 |
| 1 | M | 0.51 | 21.10 | 4.55 | 3.61 | 64.24 | 1.32 | 2.60 | 0.59 | 0.68 | 0.018 | 1.58 | 58.0 | 16.7 | 5.9 | 11.0 | 22.9 | 2.15 | 1.9 | 3050 | 130 | 180 | 1.5 | 0.21 | - | 213 | 270 | 357 | 467 | 41 | 60 | 76 | I-CE-00-464 |
| 2 | S | 0.33 | 20.85 | 4.51 | 3.58 | 63.80 | 1.30 | 2.78 | 0.60 | 0.68 | 0.018 | 1.95 | 57.9 | 16.1 | 5.9 | 10.9 | 22.7 | - | 2.3 | 3170 | 130 | 185 | 1.5 | 0.21 | - | 237 | 292 | 377 | 480 | 46 | 69 | 77 | I-CE-00-465 |
| 2 | M | 0.60 | 20.94 | 4.53 | 3.59 | 63.88 | 1.30 | 2.70 | 0.59 | 0.68 | 0.017 | 1.60 | 57.6 | 16.5 | 5.9 | 10.9 | 22.8 | 2.00 | 2.1 | 3010 | 135 | 190 | 1.4 | 0.19 | - | 206 | 267 | 353 | 462 | 38 | 60 | 71 | I-CE-00-466 |
| 3 | M | 0.55 | 20.83 | 4.52 | 3.57 | 63.49 | 1.28 | 2.71 | 0.59 | 0.66 | 0.018 | 1.77 | 57.0 | 16.7 | 5.9 | 10.9 | 22.7 | 1.75 | 2.2 | 3010 | 130 | 180 | 1.3 | 0.17 | - | 208 | 259 | 352 | 458 | 36 | 60 | 75 | I-CE-00-468 |
| 5 | S | 0.51 | 20.86 | 4.52 | 3.57 | 63.55 | 1.29 | 2.75 | 0.59 | 0.68 | 0.018 | 1.94 | 56.9 | 16.9 | 5.9 | 10.9 | 22.7 | 2.05 | 2.2 | 3200 | 135 | 185 | 1.5 | 0.20 | - | 224 | 276 | 372 | 466 | 41 | 63 | 78 | I-CE-00-470 |
| 6 | M | 0.58 | 20.88 | 4.51 | 3.60 | 63.66 | 1.28 | 2.74 | 0.60 | 0.68 | 0.018 | 1.70 | 57.2 | 16.7 | 5.9 | 11.0 | 22.7 | 2.05 | 1.9 | 3010 | 130 | 180 | 1.4 | 0.20 | - | 204 | 258 | 361 | 456 | 41 | 62 | 75 | I-CE-00-473 |
| 7 | M | 0.42 | 20.97 | 4.56 | 3.68 | 63.78 | 1.31 | 2.67 | 0.58 | 0.68 | 0.017 | 1.73 | 56.8 | 17.3 | 5.9 | 11.2 | 22.9 | 1.80 | 2.1 | 3050 | 135 | 185 | 1.4 | 0.17 | - | 200 | 246 | 345 | 462 | 37 | 61 | 75 | I-CE-00-475 |
| 8 | S | 0.42 | 20.73 | 4.45 | 3.60 | 63.42 | 1.27 | 2.73 | 0.59 | 0.66 | 0.018 | 1.56 | 57.8 | 15.8 | 5.7 | 11.0 | 22.4 | 1.90 | 2.3 | 3110 | 130 | 175 | 1.4 | 0.18 | - | 205 | 251 | 348 | 457 | 37 | 56 | 80 | I-CE-00-476 |
| 8 | M | 0.41 | 20.93 | 4.51 | 3.60 | 63.69 | 1.28 | 2.66 | 0.69 | 0.67 | 0.018 | 1.91 | 57.2 | 16.9 | 5.9 | 11.0 | 22.7 | 1.95 | 2.2 | 3010 | 135 | 185 | 1.5 | 0.18 | - | 202 | 249 | 345 | 450 | 40 | 57 | 74 | I-CE-00-477 |
| 9 | S | 0.53 | 20.74 | 4.45 | 3.60 | 63.60 | 1.30 | 2.77 | 0.60 | 0.67 | 0.018 | 1.71 | 58.3 | 15.4 | 5.7 | 11.0 | 22.4 | 2.05 | 2.4 | 3170 | 130 | 180 | 1.5 | 0.20 | - | 226 | 279 | 372 | 475 | 41 | 60 | 79 | I-CE-00-478 |
| 9 | M | 0.51 | 21.11 | 4.57 | 3.64 | 64.39 | 1.32 | 2.61 | 0.58 | 0.67 | 0.017 | 1.83 | 58.3 | 16.5 | 6.0 | 11.1 | 23.0 | 1.80 | 2.1 | 3050 | 135 | 190 | 1.3 | 0.17 | - | 214 | 276 | 377 | 482 | 38 | 57 | 76 | I-CE-00-479 |
| 10 | S | 0.49 | 20.85 | 4.48 | 3.60 | 63.80 | 1.29 | 2.77 | 0.60 | 0.68 | 0.018 | 1.71 | 58.1 | 15.9 | 5.8 | 11.0 | 22.5 | 2.05 | 2.1 | 3140 | 130 | 180 | 1.4 | 0.19 | - | 223 | 278 | 367 | 458 | 42 | 60 | 77 | I-CE-00-480 |
| 10 | M | 0.58 | 20.91 | 4.53 | 3.60 | 63.76 | 1.29 | 2.64 | 0.57 | 0.65 | 0.017 | 1.91 | 57.5 | 16.5 | 5.9 | 11.0 | 22.8 | 1.60 | 2.2 | 3080 | 130 | 185 | 1.3 | 0.17 | - | 202 | 254 | 355 | 463 | 37 | 58 | 79 | I-CE-00-481 |
| 12 | S | 0.54 | 20.92 | 4.50 | 3.59 | 63.87 | 1.29 | 2.74 | 0.58 | 0.67 | 0.017 | 1.44 | 57.8 | 16.3 | 5.9 | 10.9 | 22.6 | 1.80 | 2.2 | 3230 | 130 | 180 | 1.4 | 0.17 | - | 215 | 270 | 367 | 475 | 40 | 61 | 80 | I-CE-00-483 |
| 12 | M | 0.46 | 20.81 | 4.50 | 3.62 | 63.51 | 1.29 | 2.68 | 0.60 | 0.68 | 0.018 | 1.89 | 57.3 | 16.4 | 5.8 | 11.0 | 22.6 | 2.05 | 2.3 | 3050 | 135 | 185 | 1.5 | 0.20 | - | 195 | 247 | 339 | 451 | 38 | 56 | 74 | I-CE-00-484 |
| 14 | S | 0.51 | 20.75 | 4.46 | 3.62 | 63.42 | 1.28 | 2.70 | 0.59 | 0.68 | 0.018 | 1.86 | 57.6 | 16.0 | 5.7 | 11.0 | 22.4 | 1.75 | 2.5 | 3110 | 140 | 190 | 1.4 | 0.17 | - | 208 | 273 | 357 | 459 | 39 | 64 | 81 | I-CE-00-486 |
| 15 | S | 0.52 | 20.77 | 4.45 | 3.59 | 63.67 | 1.28 | 2.75 | 0.58 | 0.66 | 0.018 | 1.85 | 58.5 | 15.4 | 5.7 | 10.9 | 22.4 | 1.70 | 2.3 | 3170 | 145 | 190 | 1.4 | 0.17 | - | 214 | 265 | 364 | 462 | 38 | 65 | 76 | I-CE-00-487 |
| 19 | S | 0.42 | 20.78 | 4.45 | 3.61 | 63.63 | 1.28 | 2.72 | 0.60 | 0.70 | 0.018 | 1.91 | 58.3 | 15.6 | 5.7 | 11.0 | 22.4 | 2.05 | 2.4 | 3200 | 130 | 185 | 1.5 | 0.19 | - | 205 | 264 | 355 | 457 | 40 | 59 | 80 | I-CE-00-489 |
| 19 | M | 0.65 | 21.00 | 4.51 | 3.62 | 63.94 | 1.27 | 2.69 | 0.62 | 0.69 | 0.019 | 1.77 | 57.6 | 16.8 | 5.8 | 11.0 | 22.7 | 1.90 | 1.2 | 3230 | 130 | 180 | 1.4 | 0.19 | - | 210 | 265 | 362 | 465 | 39 | 63 | 79 | I-CE-00-490 |
| 20 | S | 0.66 | 21.00 | 4.50 | 3.62 | 63.87 | 1.28 | 2.73 | 0.60 | 0.69 | 0.018 | 1.82 | 57.2 | 17.0 | 5.8 | 11.0 | 22.6 | 1.90 | 2.5 | 3110 | 130 | 180 | 1.3 | 0.17 | - | 219 | 276 | 365 | 463 | 37 | 60 | 78 | I-CE-00-491 |
| 20 | M | 0.41 | 20.64 | 4.41 | 3.56 | 62.80 | 1.23 | 2.66 | 0.60 | 0.66 | 0.017 | 2.13 | 56.5 | 16.6 | 5.7 | 10.8 | 22.2 | 1.80 | 1.9 | 3080 | 135 | 185 | 1.2 | 0.17 | - | 213 | 272 | 361 | 459 | 38 | 62 | 73 | I-CE-00-492 |
| 21 | S | 0.59 | 20.83 | 4.50 | 3.60 | 63.44 | 1.29 | 2.77 | 0.60 | 0.69 | 0.017 | 1.71 | 56.7 | 17.0 | 5.8 | 11.0 | 22.6 | 1.95 | 2.4 | 3050 | 140 | 190 | 1.4 | 0.20 | - | 204 | 255 | 349 | 452 | 39 | 54 | 72 | I-CE-00-493 |
| 21 | M | 0.41 | 20.64 | 4.40 | 3.55 | 62.93 | 1.26 | 2.74 | 0.60 | 0.73 | 0.017 | 1.92 | 56.9 | 16.3 | 5.7 | 10.8 | 22.1 | 1.85 | 2.4 | 3010 | 140 | 195 | 1.4 | 0.20 | - | 201 | 253 | 347 | 457 | 37 | 60 | 79 | I-CE-00-494 |
| 22 | S | 0.50 | 20.80 | 4.48 | 3.59 | 63.50 | 1.28 | 2.76 | 0.60 | 0.68 | 0.018 | 1.71 | 57.3 | 16.4 | 5.8 | 10.9 | 22.5 | 1.70 | 2.5 | 3140 | 135 | 185 | 1.3 | 0.17 | - | 200 | 241 | 343 | 456 | 36 | 58 | 76 | I-CE-00-495 |
| 22 | M | 0.60 | 20.81 | 4.47 | 3.59 | 63.48 | 1.30 | 2.73 | 0.61 | 0.68 | 0.018 | 1.53 | 57.3 | 16.4 | 5.8 | 10.9 | 22.5 | 1.90 | 2.2 | 2980 | 140 | 190 | 1.4 | 0.20 | - | 209 | 245 | 346 | 460 | 38 | 59 | 78 | I-CE-00-496 |
| 23 | M | 0.64 | 20.93 | 4.49 | 3.59 | 63.63 | 1.30 | 2.69 | 0.60 | 0.68 | 0.017 | 1.75 | 57.0 | 17.0 | 5.8 | 10.9 | 22.6 | 2.05 | 2.0 | 3010 | 135 | 185 | 1.5 | 0.21 | - | 205 | 253 | 352 | 449 | 39 | 62 | 76 | I-CE-00-498 |
| 24 | S | 0.51 | 20.83 | 4.45 | 3.58 | 63.52 | 1.29 | 2.72 | 0.59 | 0.68 | 0.017 | 1.69 | 57.5 | 16.3 | 5.7 | 10.9 | 22.4 | 1.80 | 2.5 | 3080 | 130 | 180 | 1.4 | 0.20 | - | 226 | 275 | 372 | 474 | 44 | 61 | 79 | I-CE-00-499 |
| 25 | M | 0.47 | 21.04 | 4.51 | 3.61 | 64.00 | 1.33 | 2.72 | 0.60 | 0.68 | 0.017 | 1.90 | 57.4 | 17.0 | 5.8 | 11.0 | 22.7 | 2.00 | 2.1 | 3010 | 135 | 185 | 1.5 | 0.21 | - | 224 | 265 | 359 | 463 | 43 | 59 | 78 | I-CE-00-501 |
| 26 | S | 0.36 | 20.80 | 4.46 | 3.59 | 63.58 | 1.29 | 2.76 | 0.60 | 0.68 | 0.018 | 1.75 | 57.8 | 16.0 | 5.7 | 10.9 | 22.4 | 1.80 | 2.4 | 3110 | 130 | 180 | 1.3 | 0.17 | - | 219 | 273 | 358 | 456 | 42 | 60 | 73 | I-CE-00-502 |
| 26 | M | 0.61 | 20.90 | 4.52 | 3.66 | 63.84 | 1.31 | 2.62 | 0.60 | 0.68 | 0.019 | 1.50 | 58.0 | 16.2 | 5.8 | 11.1 | 22.7 | 2.10 | 2.1 | 2980 | 130 | 185 | 1.5 | 0.21 | - | 201 | 248 | 347 | 455 | 38 | 57 | 72 | I-CE-00-503 |
| 27 | S | 0.51 | 20.73 | 4.43 | 3.58 | 63.55 | 1.30 | 2.76 | 0.60 | 0.68 | 0.018 | 1.73 | 58.4 | 15.4 | 5.7 | 10.9 | 22.3 | 1.90 | 2.3 | 3080 | 130 | 180 | 1.4 | 0.20 | - | 230 | 286 | 360 | 464 | 43 | 58 | 82 | I-CE-00-504 |
| 27 | M | 0.61 | 20.93 | 4.51 | 3.61 | 63.59 | 1.31 | 2.65 | 0.60 | 0.67 | 0.017 | 1.52 | 56.8 | 17.2 | 5.8 | 11.0 | 22.7 | 2.05 | 2.2 | 3050 | 135 | 185 | 1.5 | 0.21 | - | 204 | 245 | 338 | 447 | 39 | 56 | 78 | I-CE-00-505 |
| 28 | M | 0.65 | 20.73 | 4.40 | 3.59 | 63.62 | 1.29 | 2.71 | 0.61 | 0.68 | 0.019 | 1.92 | 59.0 | 14.9 | 5.6 | 10.9 | 22.1 | 2.10 | 2.1 | 3050 | 130 | 180 | 1.4 | 0.21 | - | 198 | 245 | 347 | 443 | 40 | 60 | 76 | I-CE-00-507 |
| 29 | S | 0.48 | 20.83 | 4.47 | 3.61 | 63.94 | 1.34 | 2.73 | 0.60 | 0.68 | 0.017 | 1.71 | 59.0 | 15.2 | 5.7 | 11.0 | 22.5 | 1.60 | 2.5 | 3140 | 135 | 185 | 1.3 | 0.17 | - | 219 | 278 | 356 | 446 | 41 | 62 | 73 | I-CE-00-508 |
| 30 | S | 0.54 | 20.75 | 4.45 | 3.59 | 63.54 | 1.29 | 2.75 | 0.60 | 0.67 | 0.018 | 1.89 | 58.1 | 15.7 | 5.7 | 10.9 | 22.4 | 1.80 | 2.2 | 3110 | 135 | 185 | 1.3 | 0.17 | - | 224 | 267 | 361 | 464 | 37 | 60 | 72 | I-CE-00-509 |
| 30 | M | 0.60 | 20.96 | 4.54 | 3.60 | 63.80 | 1.35 | 2.74 | 0.61 | 0.69 | 0.018 | 1.66 | 57.0 | 17.1 | 5.9 | 11.0 | 22.8 | 2.05 | 1.9 | 3010 | 140 | 190 | 1.4 | 0.20 | - | 203 | 254 | 349 | 465 | 36 | 57 | 73 | I-CE-00-510 |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Avg | | 0.52 | 20.86 | 4.49 | 3.60 | 63.66 | 1.29 | 2.71 | 0.60 | 0.68 | 0.018 | 1.77 | 57.6 | 16.3 | 5.8 | 11.0 | 22.6 | 1.91 | 2.2 | 3086 | 133 | 184 | 1.4 | 0.19 | - | 212 | 263 | 356 | 460 | 39 | 60 | 76 | - |
| Min | | 0.33 | 20.64 | 4.40 | 3.58 | 62.80 | 1.23 | 2.60 | 0.57 | 0.65 | 0.017 | 1.44 | 56.5 | 14.9 | 5.6 | 10.8 | 22.1 | 1.60 | 1.2 | 2980 | 125 | 175 | 1.2 | 0.17 | - | 195 | 241 | 338 | 443 | 36 | 54 | 71 | - |
| Max | | 0.66 | 21.11 | 4.57 | 3.68 | 64.39 | 1.35 | 2.78 | 0.69 | 0.73 | 0.019 | 2.13 | 59.0 | 17.3 | 6.0 | 11.2 | 23.0 | 2.15 | 2.5 | 3230 | 145 | 195 | 1.5 | 0.21 | - | 237 | 292 | 377 | 482 | 46 | 69 | 82 | - |
| S.D | | 0.09 | 0.11 | 0.04 | 0.02 | 0.29 | 0.02 | 0.05 | 0.02 | 0.01 | 0.001 | 0.15 | 0.65 | 0.61 | 0.10 | 0.08 | 0.22 | 0.15 | 0.25 | 70.92 | 4.26 | 4.54 | 0.08 | 0.02 | - | 10.47 | 13.37 | 10.20 | 9.04 | 2.49 | 2.86 | 2.90 | - |

S : Silo
M : Mill

کارشناس آزمایشگاه:

رئیس آزمایشگاهها:

مدیرکنترل کیفی و آزمایشگاهها:

مدیر کارخانه: ۱۴۰۰/۱۰/۷

آزمایشگاه سیمان ممتازان کرمان

# گزارش ماهانه کنترل کیفیت سیمان ممتازان کرمان

## نوع سیمان: پرتلند تیپ ۴۲۵-۱

شماره مدرک: LA-F-023-02

تاریخ: دی ۱۴۰۰ صفحه ۳ از ۳

| Day | | Chemical Compositions & Phases % | | | | | | | | | | | | | | | | Physical Test | | | | | | | | | | | | | | Lab.Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | Fineness | | Setting time | | Soundness | | Compressive Strength (kg/cm²) | | | | | Bend Strength (kg/cm²) | | | |
| | | IR | $SiO_2$ | $Al_2O_3$ | $Fe_2O_3$ | CaO | MgO | $SO_3$ | $K_2O$ | $Na_2O$ | Cl | LOSS | C3S | C2S | C3A | C4AF | C4AF +2C3A | F.CaO | Sieve 90 mic | Blaine (cm²/gr) | INIT (min) | FINAL (min) | LEACHTELIER (mm) | Auto Clave (%) | 1 DAY | 2 DAYS | 3 DAYS | 7 DAYS | 28 DAYS | 2 DAYS | 7 DAYS | 28 DAYS | |
| 3 | S | 0.52 | 21.09 | 4.53 | 3.64 | 63.39 | 1.32 | 2.77 | 0.59 | 0.66 | 0.017 | 1.17 | 54.2 | 19.5 | 5.8 | 11.1 | 22.8 | 1.65 | 1.9 | 3050 | 130 | 180 | 1.4 | 0.17 | - | 214 | 273 | 369 | 465 | 44 | 58 | 83 | I-CE-00-467 |
| 4 | M | 0.43 | 21.03 | 4.43 | 3.61 | 63.66 | 1.29 | 2.72 | 0.60 | 0.66 | 0.017 | - | 56.7 | 17.6 | 5.6 | 11.0 | 22.2 | 1.90 | 2.0 | 3010 | 140 | 190 | 1.3 | 0.17 | - | 201 | 249 | 344 | 453 | 39 | 62 | 74 | I-CE-00-469 |
| 5 | M | 0.44 | 21.21 | 4.52 | 3.65 | 63.73 | 1.31 | 2.80 | 0.60 | 0.69 | 0.017 | 0.97 | 54.7 | 19.6 | 5.8 | 11.1 | 22.7 | - | 2.1 | 2980 | 135 | 185 | 1.5 | 0.19 | - | 213 | 257 | 356 | 470 | 38 | 62 | 79 | I-CE-00-471 |
| 7 | S | 0.43 | 21.33 | 4.53 | 3.65 | 63.83 | 1.32 | 2.75 | 0.59 | 0.67 | 0.017 | 0.93 | 54.2 | 20.2 | 5.8 | 11.1 | 22.8 | 1.85 | 1.6 | 3110 | 130 | 180 | 1.3 | 0.17 | - | 217 | 268 | 365 | 478 | 38 | 67 | 83 | I-CE-00-474 |
| 11 | M | 0.46 | 21.29 | 4.53 | 3.68 | 63.87 | 1.31 | 2.66 | 0.59 | 0.68 | 0.017 | 0.89 | 54.9 | 19.6 | 5.8 | 11.2 | 22.8 | 1.80 | 2.3 | 3010 | 135 | 185 | 1.3 | 0.17 | - | 200 | 251 | 342 | 458 | 38 | 56 | 75 | I-CE-00-482 |
| 13 | S | 0.43 | 21.08 | 4.49 | 3.62 | 63.31 | 1.29 | 2.75 | 0.59 | 0.66 | 0.017 | 0.93 | 54.3 | 19.4 | 5.8 | 11.0 | 22.6 | 1.70 | 1.9 | 3080 | 135 | 185 | 1.3 | 0.17 | - | 211 | 262 | 361 | 478 | 42 | 67 | 82 | I-CE-00-485 |
| 24 | M | 0.46 | 21.27 | 4.49 | 3.66 | 63.80 | 1.33 | 2.68 | 0.60 | 0.69 | 0.017 | 1.00 | 55.0 | 19.5 | 5.7 | 11.1 | 22.5 | 1.85 | 2.2 | 2980 | 140 | 190 | 1.3 | 0.17 | - | 213 | 264 | 354 | 471 | 39 | 62 | 80 | I-CE-00-500 |
| Avg | | 0.45 | 21.19 | 4.50 | 3.64 | 63.66 | 1.31 | 2.73 | 0.59 | 0.67 | 0.017 | 0.98 | 54.9 | 19.3 | 5.8 | 11.1 | 22.6 | 1.79 | 2.0 | 3031 | 135 | 185 | 1.3 | 0.17 | - | 210 | 261 | 356 | 468 | 40 | 62 | 79 | - |
| Min | | 0.43 | 21.03 | 4.43 | 3.61 | 63.31 | 1.29 | 2.66 | 0.59 | 0.66 | 0.017 | 0.89 | 54.2 | 17.6 | 5.6 | 11.0 | 22.2 | 1.65 | 1.6 | 2980 | 130 | 180 | 1.3 | 0.17 | - | 200 | 249 | 342 | 453 | 38 | 56 | 74 | - |
| Max | | 0.52 | 21.33 | 4.53 | 3.68 | 63.87 | 1.33 | 2.80 | 0.60 | 0.69 | 0.017 | 1.17 | 56.7 | 20.2 | 5.8 | 11.2 | 22.8 | 1.90 | 2.3 | 3110 | 140 | 190 | 1.5 | 0.19 | - | 217 | 273 | 369 | 478 | 44 | 67 | 83 | - |
| S.D | | 0.03 | 0.12 | 0.04 | 0.02 | 0.22 | 0.02 | 0.05 | 0.01 | 0.01 | 0.000 | 0.10 | 0.85 | 0.83 | 0.07 | 0.07 | 0.19 | 0.10 | 0.23 | 50.14 | 4.08 | 4.08 | 0.08 | 0.01 | | 6.64 | 8.77 | 10.16 | 9.54 | 2.36 | 4.12 | 3.69 | - |

S : Silo M : Mill

آزمایشگاه سیمان ممتازان کرمان

۱۴۰۰/۱۲/۰۲

مدیر کارخانه:

مدیرکنترل کیفی و آزمایشگاهها:

رئیس آزمایشگاهها:

کارشناس آزمایشگاه:

شماره مدرک: LA-F-023-02

تاریخ: دی ۱۴۰۰ صفحه ۲ از ۳

# گزارش ماهانه کنترل کیفیت سیمان ممتازان کرمان

## نوع سیمان: پرتلند پوزولانی ویژه

| Day | Chemical Compositions & Phases % | | | | | | | | | | | | | | | | Physical Test | | | | | | | | | | | | Lab.Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | Fineness | | Setting time | | Soundness | | Compressive Strength ($kg/cm^2$) | | | | | Bend Strength ($kg/cm^2$) | | | |
| | IR | $SiO_2$ | $Al_2O_3$ | $Fe_2O_3$ | CaO | MgO | $SO_3$ | $K_2O$ | $Na_2O$ | Cl | LOSS | C3S | C2S | C3A | C4AF | C4AF +2C3A | F.CaO | Sieve 90 mic | Blaine ($cm^2/gr$) | INIT (min) | FINAL (min) | LEACHTELIER (mm) | Auto Clave (%) | 1 DAY | 2 DAYS | 3 DAYS | 7 DAYS | 28 DAYS | 2 DAYS | 7 DAYS | 28 DAYS | |
| 6 S | - | 27.17 | 8.18 | 3.92 | 53.63 | 1.29 | 2.23 | 0.90 | 1.25 | 0.018 | 1.40 | - | - | - | - | - | 1.70 | 1.5 | 3670 | 135 | 185 | 1.3 | 0.17 | - | 183 | 236 | 328 | 426 | 40 | 64 | 77 | I-CE-00-472 |
| 15 S | - | 27.53 | 8.40 | 3.90 | 52.93 | 1.25 | 2.14 | 0.90 | 1.25 | 0.018 | 1.66 | - | - | - | - | - | 1.85 | 1.4 | 3770 | 140 | 195 | 1.4 | 0.17 | - | 163 | 207 | 316 | 423 | 34 | 56 | 71 | I-CE-00-488 |
| 23 S | - | 27.03 | 8.12 | 3.85 | 53.85 | 1.22 | 2.23 | 0.89 | 1.23 | 0.017 | 1.54 | - | - | - | - | - | 1.75 | 1.4 | 3820 | 135 | 185 | 1.2 | 0.14 | - | 189 | 232 | 328 | 426 | 38 | 66 | 78 | I-CE-00-497 |
| 28 S | - | 27.36 | 8.27 | 3.92 | 53.21 | 1.26 | 2.26 | 0.90 | 1.25 | 0.017 | 1.52 | - | - | - | - | - | 1.50 | 1.7 | 3790 | 130 | 185 | 1.1 | 0.11 | - | 176 | 221 | 324 | 417 | 34 | 59 | 73 | I-CE-00-506 |
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| Avg | - | 27.27 | 8.24 | 3.90 | 53.41 | 1.26 | 2.22 | 0.90 | 1.25 | 0.018 | 1.53 | - | - | - | - | - | 1.70 | 1.5 | 3763 | 135 | 188 | 1.3 | 0.15 | - | 178 | 224 | 324 | 423 | 37 | 61 | 75 | - |
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