

Certificate of Analysis

Date: **15.01.2025**
 Ref. No.: **2025-0520**
 Sub: **Certificate of Analysis Calcium Carbonate**

Analysis Of Calcium Carbonate

| No. | Specimen | Calcium Carbonate |
|-----|--------------------------------|-------------------|
| 1 | SiO ₂ | 0.9 |
| 2 | So ₃ | 0.03 |
| 3 | Na ₂ O | 0.02 |
| 4 | K ₂ O | 0.04 |
| 5 | Al ₂ O ₃ | 0.24 |
| 6 | Fe ₂ O ₃ | 0.21 |
| 7 | Cao | 54.12 |
| 8 | MgO | 0.5 |
| 9 | L.O.I | 43.94 |

Analysis Of Hydrated Lime (Ca (OH)₂)

| Physical characteristics | RESULT - Spec -Value - ASTM |
|--------------------------|---|
| Molecular mass | 74.08 (g/mol) |
| Density | 400-600 (Kg/m ³) |
| Hardness | Between 2 and 3 Mohs |
| Solubility in water | 0.0015 (gr/100g water) |
| Special Weight | 2.2 - 2.4 (g/ml) |
| Hardness ₂ | 3.0 Mohs @40°C |
| Boiling point | Not Applicable |
| melting point | Not Applicable |
| PH | 11.5 - 12.5 (at 1.53 g/1 l at 25 °C) (saturated solution) |

Chemical specifications:

| Ca(OH) ₂ | CaCO ₃ | SiO ₂ | K ₂ O | Na ₂ O | Fe ₂ O ₃ | Moisture |
|---------------------|-------------------|--------------------------------|------------------|-------------------------------|--------------------------------|--------------------|
| Min 90 % | < 4 % | < 0.4 % | < 0.1 % | < 0.1 % | < 0.3 % | < 0.7 % |
| CaO (Free) | MgO | Al ₂ O ₃ | MnO | P ₂ O ₅ | SO ₃ | L.O.I |
| < 1.3 % | < 0.9 % | < 0.4 % | < 0.02 % | < 0.2 % | Trace | 19% < L.O.I < 24 % |

Analysis Of Quick Lime

| No. | Specimen | SiO ₂ | So ₃ | Na ₂ O | K ₂ O | Al ₂ O ₃ | Fe ₂ O ₃ | Cao | MgO | L.O.I 980°C |
|-----|-----------------------------------|------------------|-----------------|-------------------|------------------|--------------------------------|--------------------------------|--------|------|----------------|
| 1 | Quick Lime 10-30 mm | 0.98% | 0.03% | 0.02% | 0.04% | 0.31% | 0.29% | 90-93% | 1-2% | 2-4% |
| 2 | Quick Lime 20-50 mm | 1% | 0.03% | 0.02% | 0.04% | 0.31% | 0.29% | 89-92% | 1-2% | 2-5% |
| 3 | Quick Lime Powder Mesh 150-200 | 0.98% | 0.02% | 0.01% | 0.03% | 0.27% | 0.37% | 90-93% | 1-2% | 2-4% |

