

CERTIFICADO DA QUALIDADE - FMN

ENSAIOS QUÍMICOS E FÍSICOS DO CIMENTO CP III 40

Fevereiro-2025

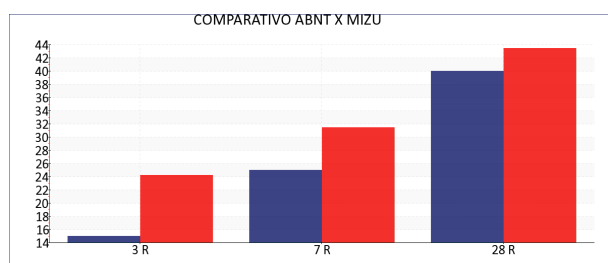
| DATA | COMPOSIÇÃO QUÍMICA | | | | | RESISTÊNCIA A COMPRESSÃO | | | MASSA | FINURA | | | EXP. | PEGA | | CONSIST. |
|------------|--------------------|------|------|------|------|--------------------------|--------|-------|---------|---------|--------|------|------|--------|--------|----------|
| | Parâmetros | PF | RI | SO3 | CO2 | CaO L. | 3 DIAS | 7 DIA | 28 DIAS | ESPEC. | BLAINE | #325 | #200 | QUENTE | INICIO | FIM |
| Unidades | % | % | % | % | % | MPa | MPa | MPa | g/cm³ | cm²/g | % | % | mm | min | min | % |
| 03/02/2025 | 1.96 | 1.26 | 2.65 | 0.00 | 0.92 | 24.30 | 29.90 | 43.80 | 3.04 | 4525.00 | 1.35 | 0.17 | 0.00 | 135.00 | 220.00 | 31.20 |
| 04/02/2025 | 1.21 | 1.49 | 1.74 | 0.00 | 0.79 | 22.90 | 29.60 | 43.20 | 3.04 | 4895.00 | 1.55 | 0.21 | 0.00 | 150.00 | 240.00 | 30.50 |
| 05/02/2025 | 1.26 | 1.30 | 1.80 | 0.00 | 0.99 | 24.20 | 30.10 | | 3.04 | 5196.00 | 2.50 | 0.32 | 0.00 | 160.00 | 255.00 | 29.80 |
| 06/02/2025 | 1.42 | 1.15 | 2.45 | 0.00 | 0.92 | 24.30 | 31.80 | | 3.04 | 4785.00 | 2.00 | 0.35 | 0.00 | 150.00 | 240.00 | 28.80 |
| 07/02/2025 | 1.35 | 0.51 | 2.33 | 0.00 | 0.98 | 24.70 | 30.90 | | 3.04 | 4526.00 | 2.40 | 0.20 | 0.00 | 145.00 | 235.00 | 29.20 |
| 08/02/2025 | 1.57 | 0.80 | 2.55 | 0.00 | 0.81 | 24.00 | 32.30 | | 3.04 | 4625.00 | 2.20 | 0.20 | 0.00 | 140.00 | 230.00 | 30.70 |
| 10/02/2025 | 1.50 | 0.96 | 2.36 | 0.00 | 0.92 | 25.00 | 33.80 | | 3.04 | 4725.00 | 2.20 | 0.25 | 0.00 | 130.00 | 225.00 | 29.90 |
| 11/02/2025 | 1.85 | 1.32 | 2.48 | 0.00 | 0.89 | 25.20 | 33.60 | | 3.04 | 4996.00 | 2.35 | 0.30 | 0.00 | 135.00 | 210.00 | 30.50 |

Controle Estatístico

| | | | | | | R3 | R7 | R28 | | | | | | | | |
|----------------|------|------|------|------|------|-------|-------|-------|------|---------|------|------|------|--------|--------|-------|
| Média | 1.50 | 1.10 | 2.30 | 0.00 | 0.90 | 24.30 | 31.50 | 43.50 | 3.00 | 4784.10 | 2.10 | 0.30 | 0.00 | 143.10 | 231.90 | 30.10 |
| Desvio (P) | 0.30 | 0.30 | 0.30 | 0.00 | 0.10 | 0.70 | 1.60 | 0.40 | 0.00 | 235.90 | 0.40 | 0.10 | 0.00 | 10.00 | 13.90 | 0.80 |
| NBR 16697:2018 | <6,5 | <5,0 | <4,5 | <5,5 | - | >12,0 | >23,0 | >40,0 | - | - | - | <8,0 | <5,0 | <60 | - | - |

Comparativo ABNT x MIZU

| | ABNT | MIZU |
|-----|------|-------|
| R3 | 12 | 24.30 |
| R7 | 23 | 31.50 |
| R28 | 40 | 43.50 |



• ABNT • MIZU

[Assinatura]

Responsável Técnico
Gabriele Oliveira da Silva
CRQ 14200571 - XIV Região