Micro-Deval Interpretation — NF EN 1097-1

Sheet: Micro-Deval-Sheets N°=1-

- **Standard:** NA 5129

Granular class: 10/14

Test variant: MDE (wet, EN 1097-1 reference method)

1. Micro-Deval coefficient

- **Tests used:** 3
- **MDE :** 23,33 % (computed from M and refus mass)

$$\mathrm{MDE} = 100 \cdot \frac{m}{M} = 23,33\ \%$$

M = initial mass (g); m = mass passing the 1.6 mm sieve after the test in the presence of water (g).

2. NF EN 12620 classification (concrete aggregates)

- **Category:** MDE25
- *Table 14/16 — EN 12620: MDE10, MDE15, MDE20, MDE25, MDE35, MDENR.*

3. GNT/GTLH (EN 13242) & bituminous mixes (EN 13043)

- **EN 13242 (UGM/HBM):** MDE25
- **EN 13043 (bituminous):** MDE25

4. Wear resistance & suitable uses

- **Wear quality:** medium — moderate wear.
- **Uses:** wearing courses (medium traffic), ordinary bituminous mixes.

5. Link with GTR classification (NF P 11-300)

- **MDE ≤ 45** matches: **hard** limestone (R_{21}) — *MDE is the only criterion for R_{21}*.

  Additionally, **MDE ≤ 45** is used in: **hard** siliceous rocks (R_{41}) and **hard** magmatic/metamorphic rocks (R_{61}), *which also require LA ≤ 45*.

The MDE coefficient is not used in families R_1 (chalk: ρd, wn), R_3 (marl: FR, DG, wn/wOPN, IPI) or R_5 (saline: salt content).

6. Verification vs specification

- **Project specification:** MDE ≤ 25,00 %
- ✅ **VERIFIED**: MDE = 23,33 ≤ 25,00 %

7. References

Method: NF EN 1097-1 — resistance to wear (Micro-Deval, in the presence of water). Classifications: NF EN 12620 (concrete), NF EN 13242 (UGM/HBM), NF EN 13043 (bituminous). GTR link: NF P 11-300.