## PRODUCT DATASHEET: GRIPSTONE ${ }^{\circledR}$ 0/4

## REFERENCES

| SPECIFICATION | DESCRIPTION AND USE |
| :--- | :--- |
| EN12620:2002 + A1:2008 | Artificial aggregate of industrial origin 0/4 <br> Aggregates for concrete. |
| EN 13043:2002/AC:2004 | Artificial aggregate of industrial origin 0/4 <br> Aggregates for bituminous mixtures and surface treatments for roads, airfields and other <br> trafficked areas. |
| EN13139:2002/AC:2004 | Artificial aggregate of industrial origin 0/4 <br> Aggregates for use in mortar. |
| EN13242:2002 + A1:2007 | Artificial aggregate of industrial origin 0/4 <br> Aggregates for unbound and hydraulically bound materials for use in civil engineering work and <br> road construction. |

## CHEMICAL AND MINERALOGICAL COMPOSITION

Elements expressed as oxides (\% by weight from XRF analysis) and mineralogical phases present (from XRD analysis).

| Gehlenite $\left[\mathrm{Ca}_{2} \mathrm{Al}_{2} \mathrm{SiO}_{7}\right]$ |
| :--- |
| Wüstite $[\mathrm{FeO}]$ |
| Calcium silicate $\left[\mathrm{Ca}_{2} \mathrm{SiO}_{4}\right]$ and calcium magnesium silicate |
| $\left[\mathrm{Ca} 7 \mathrm{Mg}\left(\mathrm{SiO}_{4}\right)_{4}\right]$ |
| Spinel (chromite $\left[\mathrm{FeCr}_{2} \mathrm{O}_{4}\right] /$ magnetite $\left[\mathrm{FeFe}_{2} \mathrm{O}_{4}\right]$ |
| Manganese oxide $\left[\mathrm{Mn}_{3} \mathrm{O}_{4}\right]$ |


|  | $\mathrm{SiO}_{2}+\mathrm{Al}_{2} \mathrm{O}_{3}$ <br> $(\mathrm{w} / \mathrm{w} \%)$ | $\mathrm{CaO}+\mathrm{MgO}$ <br> $(\mathrm{w} / \mathrm{w} \%)$ | $\mathrm{FeOn}+\mathrm{MnO}$ <br> $(\mathrm{w} / \mathrm{w} \%)$ |
| :--- | :---: | :---: | :---: |
| Min. | 10 | 24 | 15 |
| Max. | 38 | 55 | 64 |

## MECHANICAL AND DIMENSIONAL CHARACTERISTICS (annual average values)

Particle size analysis according to UNI EN 933-1:2012 (\% cumulative mass passing through)


## STANDARD PACKAGING

Loose material in open-air piles.

## PRODUCT REGISTRATION AND DOCUMENTATION

The black slag, from which GRIPSTONE ${ }^{\circledR}$ is obtained, is registered with REACH under no. 01-2119485979-09-0056. GRIPSTONE ${ }^{\oplus}$ holds the EPD, the CE marking certificate and the Declaration of Performance.

| Sieve opening size <br> $(\mathrm{mm})$ | Fraction of mass <br> retained (\%) | Cumulative mass <br> passing through (\%) |
| :---: | :---: | :---: |
| 6.3 | 0 | 100 |
| 5.6 | 2 | 98 |
| 4 | 8 | 90 |
| 2 | 29 | 61 |
| 1 | 25 | 36 |
| 0.500 | 16 | 20 |
| 0.250 | 9 | 11 |
| 0.063 | 7 | 4 |

Bulk density of particle grains: $3.92 \mathrm{mg} / \mathrm{m}^{3}$


