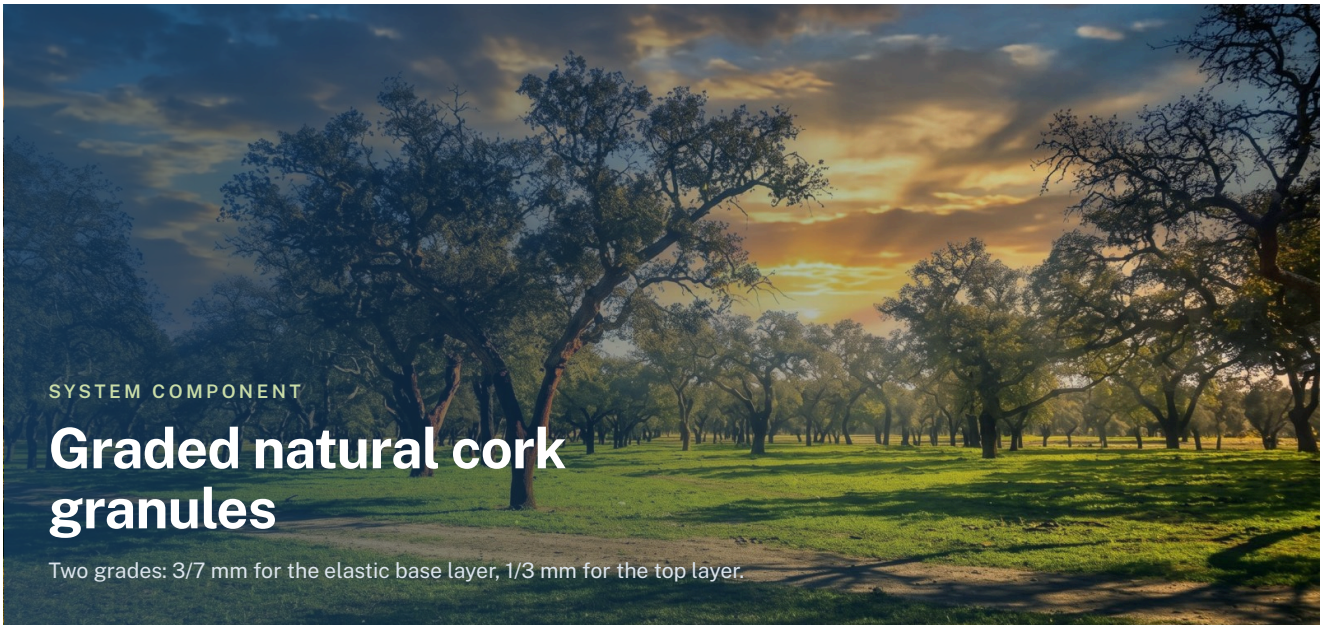


SYSTEM COMPONENT

Graded natural cork granules

Two grades: 3/7 mm for the elastic base layer, 1/3 mm for the top layer.

Fig. 1 — Cork oak forest harvested by hand stripping, with no felling.

01 — IDENTIFICATION

Graded natural cork granules, produced by sorting and grinding cork oak bark. Traceable Portuguese supply chain. Hand stripping with no felling, harvested every nine years; the tree is kept for several generations.

Grade	Function in the system	Terraludis reference
Medium granules 3/7 mm	Elastic impact-absorbing base layer	**TL-LIEGE 3/7**
Fine granules 1/3 mm	Top and wearing layer	**TL-LIEGE 1/3**

02 — PHYSICAL PROPERTIES

SALES SPECIFICATION	3/7 mm	1/3 mm
Grading	3 / 7 mm	1 / 3 mm
Bulk density	80 / 110 kg/m³ (± 5)	80 / 110 kg/m³ (± 5)
Moisture	≤ 10% (± 2%)	≤ 10% (± 2%)
Oversize (retained on upper sieve)	> 8.00 mm: ≤ 6%	> 3.00 mm: ≤ 6%
Undersize (passing lower sieve)	< 2.00 mm: ≤ 6%	< 0.50 mm: ≤ 6%

VALUES MEASURED ON A BATCH	3/7 mm	1/3 mm
Bulk density	90 kg/m³	95 kg/m³
Moisture	6.68%	8.00%
Appearance	light	light
Sensory analysis	no deterioration	no deterioration

Note — measured values come from a mill inspection certificate and do not replace the sales specification, which alone is contractual. Quantities should be calculated on the upper end of the bulk-density range.

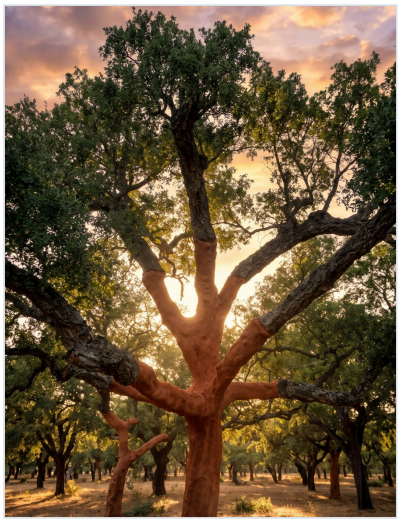


Fig. 2 — Freshly stripped cork oak, bark stacked at the foot of the tree.



Fig. 3 — Fine 1/3 mm granules, top view.

03 — GRADING CURVE

3/7 mm granules — cumulative retained

Sieve (mm)	% retained	% cumulative
7.10	8.60	8.60
6.30	14.96	23.56
5.60	15.40	38.96
4.75	28.88	67.84
4.00	16.34	84.18
3.35	13.88	98.06
2.80	1.82	99.88
2.00	0.12	100.00

1/3 mm granules — cumulative retained

Sieve (mm)	% retained	% cumulative
3.35	3.09	3.09
2.80	15.45	18.54
2.50	27.20	45.74
2.36	16.20	61.94
2.00	34.58	96.52
1.60	3.10	99.62
1.25	0.23	99.85
1.00	0.10	99.95
0.00	0.05	100.00

FINES · TOP-LAYER GRANULES

0.05 %

Passing at 0.00 mm for the 1/3 mm granules, value from the cumulative retained table.



Fig. 4 — Medium 3/7 mm granules, cross-section.

04 — PURITY AND SAFETY

- Free from metal particles, nut shells and any material foreign to cork oak.
- Dedusted: fine particles removed, defined as below 0.20 mm for the 3/7 mm grade and below 0.10 mm for the 1/3 mm grade. This prevents abnormal binder consumption during mixing.
- No smell of organic decay and no hydrocarbon emissions from grinding. Suitable for schools and early-years settings.
- Untreated natural material: no heavy metals, no PAHs, no formaldehyde, no added endocrine disruptors.

05 — INSTALLATION (SEE SYSTEM SHEET)

Mixed on site with polyurethane binder, laid with a screed bar and trowel, compacted by hand or mechanically.

- Indicative consumption: 1.0 ± 0.1 kg of granules per m^2 per cm of thickness, depending on batch bulk density and degree of compaction.
- Top layer thickness: 15 mm.
- Substrate: polyurethane bonding primer, residual moisture < 4%.

Binder ratios, thicknesses, fall heights and curing times are defined at system level: they are given in system sheet **TL-FT-SYS-LIEGE**, the only specification reference for these parameters. This sheet describes the component.

06 — PACKAGING, STORAGE, SHELF LIFE

Packaging	250 / 300 kg big bag on pallet
Shelf life	6 months

Store under cover and away from moisture: cork is hygroscopic. Granules that have taken up moisture make the polyurethane binder foam.

07 — STANDARDS

The granules are intended for impact-absorbing systems whose compliance with EN 1177 is established by an impact-attenuation test on the finished system, at the thickness and binder ratio installed.

08 — NOTES

Properties from mill quality control. Indicative consumption, to be confirmed by a trial panel. Natural material: variations in colour and appearance; under UV the surface develops a greyish patina, with no loss of performance.



Fig. 5 — Cork planks drying on site after stripping.