SHRINKAGE-COMPENSATING ADMIXTURE

pymanExpand

WHAT IS IT?

Inorganic powder free of chlorides and other components harmful to concrete. Unlike expansive admixtures based on the formation of ettringite (hydrated calcium sulfoaluminate), the new pymanExpand is a calcium oxide, thermally treated in a particular way and graded by particle size, with mineral additions.

Specifically developed for the **control, reduction and/or elimination of shrinkage** in concrete. Useful in concrete for jointless industrial floors with large slabs (>20 m). Reduces the risk of cracking and decreases joint openings by up to 80 %.



Certified sustainability

Environmental Product Declaration. Scan the QR code to view the certificate.

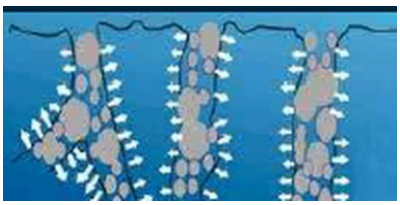
EPD®
THE INTERNATIONAL EPD® SYSTEM

COMPATIBLE WITH ANY REINFORCEMENT TECHNOLOGY

Synthetic / metallic fibers	Steel bars	Steel mesh

80 %	**8–20 kg/m³**	**>20 m**	**≥12 months**
less joint opening, at most	of concrete, depending on the required performance	large slabs without joints	shelf life under optimal conditions

HOW DOES IT WORK?



Controlled expansion that compensates for shrinkage during curing (see tests, p. 2).

STORAGE

Store in its original packaging in a dry place, avoiding contact with air.

Shelf life depends on how the product is stored; under optimal conditions (no moisture) it is not less than **12 months**.

PACKAGING

The product can be supplied in:

10 / 15 / 20 kg bags

Big Bags of 900 to 1200 kg

DOSAGE AND INSTRUCTIONS FOR USE

Dosage depends on the specific performance required, generally between **2.5 and 6 %** of the cement content, approx. **8–20 kg/m³** of concrete.

It is recommended to add the admixture at the **concrete batching plant**. It is generally compatible with the components, admixtures or additions that form part of the concrete.

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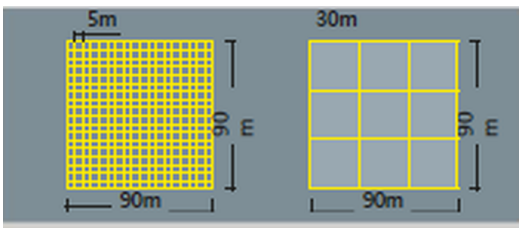
ADVANTAGES OF USE

Reduces / eliminates the formation of shrinkage cracks



WITHOUT pymanExpand · WITH pymanExpand

Large slab panels



Without admixture: 3,060 linear m of joints With pymanExpand : 360 linear m

Strong reduction in joint opening



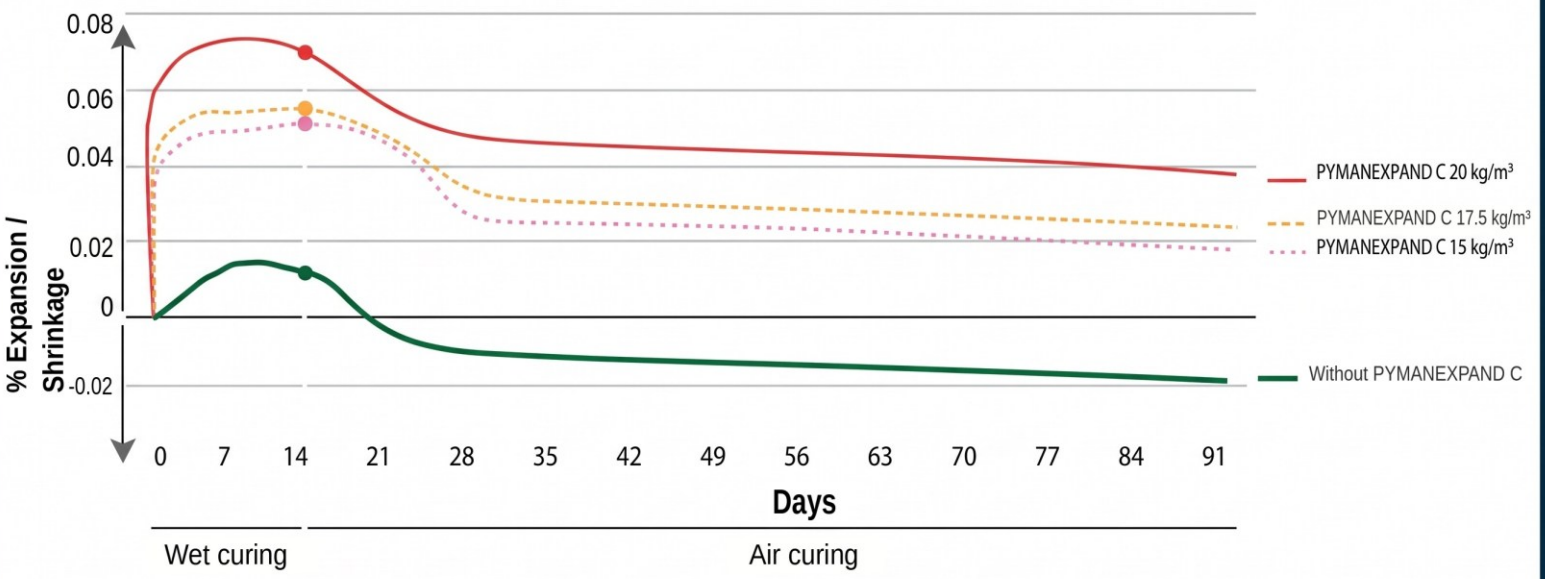
Up to 80 % less opening

- Dosage 8–20 kg/m³ of concrete
- Improves concrete impermeability
- Improves protection of steel bars and reinforcement
- Easy to use
- Increased concrete durability
- Improves resistance to chemical attack
- Compatible with different types of cement and/or mix designs

EXPANSION TEST · ASTM C 878

Expansion chart according to **ASTM C 878**

Tests on concrete with PYMANEXPAND - NG added, per standard ASTM C 878

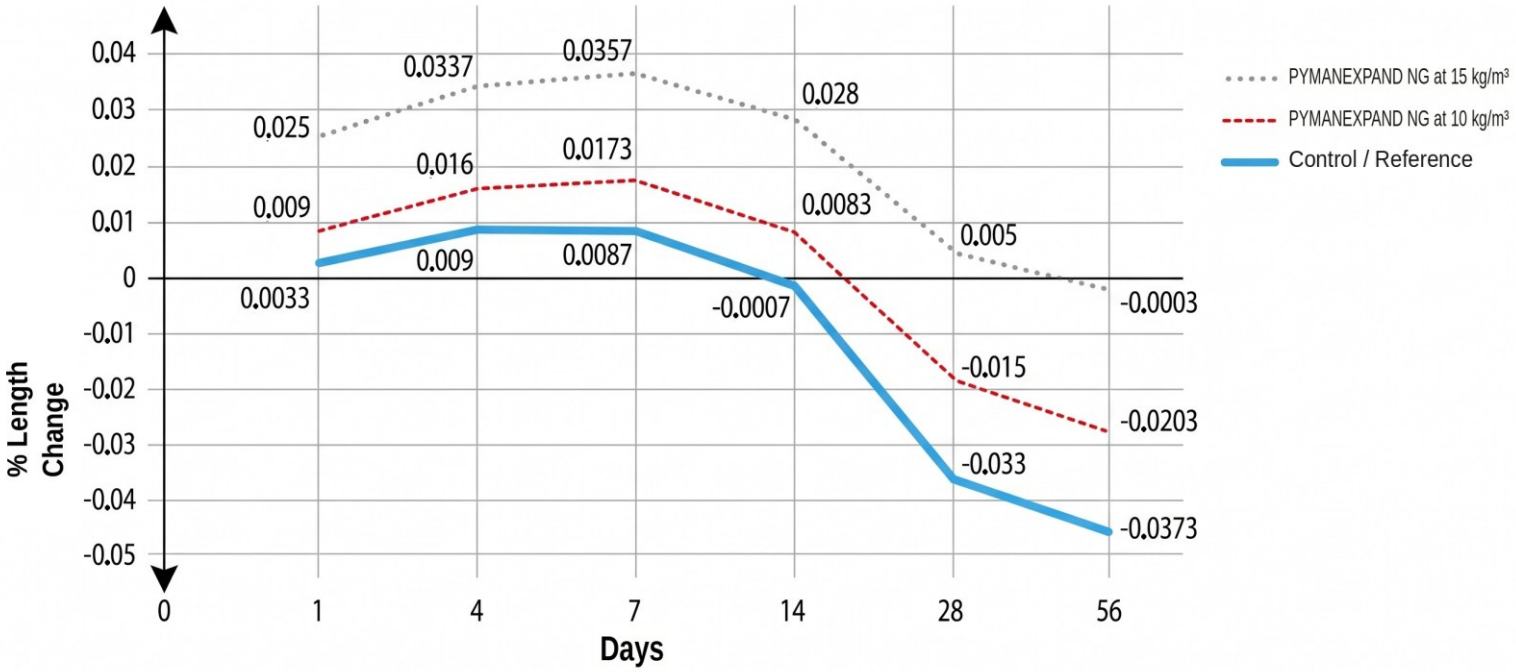


The results presented come from tests performed at the Materials and Structures Laboratory of the National University of Buenos Aires, Argentina. December 2009. The test was run with 14 days of wet curing.

LENGTH CHANGE TEST · ASTM C 157

Length change test according to
ASTM C 157

Tests performed under modified ASTM C157.
Demolding and initial reading at 12 h. Wet cure 7 days, then air cure.
Performed by SGS TEC Services, Atlanta, USA.



Day	15 kg/m³	10 kg/m³		Control / reference
1	0.025	0.009		0.0033
4	0.0337	0.016		0.009
7	0.0357	0.0173		0.0087
14	0.028	0.0083		−0.0007
28	0.005	−0.015		−0.033
56	−0.0003	−0.0203		−0.0373

Engineering, Products and Expertise in
Industrial Concrete Floors