# **DRANITE AF 890**

ALKALI-FREE SETTING ACCELERATOR FOR SHOTCRETE

High-yield version for medium-high thicknesses



**DRANITE A.F. 890** is a liquid alkali-free setting accelerator for shotcrete and sprayed mortar. **DRANITE A.F. 890** will ensure short setting times, minimal scrap quantity and superior mechanical strength.

#### BENEFITS

**DRANITE A.F. 890 is a liquid alkali-free setting accelerator for preparing concrete and sprayed grout.** Concretes prepared with DRANITE AF 890 show the following specific features:

- ✓ Good mechanical resistance.
- $\checkmark$  Good **resistance** to the **chemical aggressiveness** of the environment.
- ✓ Low concrete permeability.
- ✓ Low scrap quantity.
- ✓ Good thixotropy: it increases shotcrete adhesion, allows to realize mediumhigh thickness and to reduce the number of coating layers.
- ✓ Rapid development of the cement hydration so as to facilitate application even at low temperatures.
- ✓ It protects exposed reinforcements and prevents corrosion.

### **IDEAL FOR**

**DRANITE AF 890** is particularly suitable to carry out the following shotcrete works:

- Preliminary phase coatings for tunnels made of shotcrete.
- Restoring existing tunnels.
- ✓ Restoring and reinforcing bulkheads, dam faces, canal walls, tanks, etc.
- ✓ Walls, slabs and reinforced structural vaults.
- $\checkmark$  Restorations of degraded structures.

## DOSAGE

DRANITE AF 890 should be used in a dosage of 7 ÷ 9 % by weight of cement.



UNDERGROUND and TUNNELLING









# **DRANITE AF 890**



# APPLICATION PROCEDURE

DRANITE AF 890 should be added to concrete during the spraying phase through a connection piece equipped with suitable nozzles, in order to obtain a uniform dispersion of the admixture in the shotcrete.

Indicative mix design for standard wet-mix shotcrete (1 mc):

- cement: 450÷500 kg/m<sup>3</sup>;
- aggregates: max. diameter 6 ÷ 10 mm;
- DRACRIL 605 plasticizer: 0.6÷1.5% by weight of cement;
- DRANITE AF 890 setting accelerator: 7÷9% by weight of cement;
- Addition of FILLCRETE microfine materials with pozzolanic effect: 5÷10% by weight of cement.

The type and dosage of cement, FILLCRETE and DRACRIL must be defined on the basis of the required performance, shotcrete and on-site preliminary tests.

### PACKAGING AND STORAGE

- 250 kg drum
- 1300 kg IBC
- Bulk



If the product is stored properly in its original packaging, indoors in a dry location, it maintains its original features for 6 months. Avoid frost and direct sunlight.

## **TECHNICAL SPECIFICATIONS**

APPEARANCE	Liquid
COLOUR	Clear, neutral
MAIN ACTION	Setting accelerator for concrete
DOSAGE	from 7 to 9 kg per 100 kg of cement
HARMFULNESS - CLP 1208:2008	None. See relevant Safety data sheet
FLAMMABILITY	None
STORAGE	6 months
CUSTOM CLASS	3824 40 00
PERFORMANCE CHARACTERISTICS ACCORDING TO UNI EN 934 - 5 Alkali-free setting accelerator for shotcrete, T.2	
PECIFIC GRAVITY - UNI EN ISO 758	1.31 kg/l at 20° C
RY SOLIDS CONTENT UNI EN 480-8 (105°C)	37,9 % ± 2
ILKALI CONTENT - UNI EN 480-12	< 1% by weight
H - ISO 4316	2,8
CHLORIDE CONTENT- UNI EN ISO 480-10	< 0,1%
SETTING TIME (DOSAGE 8%)	Start: 1 min. End: 6 min.

The information given in this data sheet is based on the present state of our best scientific, practical and laboratory knowledge. We do not assume any guarantee or liability for any oral or written technical advice related to the products suitability for a particular use or application, as variations may occur depending on the care taken throughout the various phases of application, over which we have no influence. The user is responsible for checking the suitability of products for their intended use. Therefore, we are only responsible for ensuring their quality and durability.