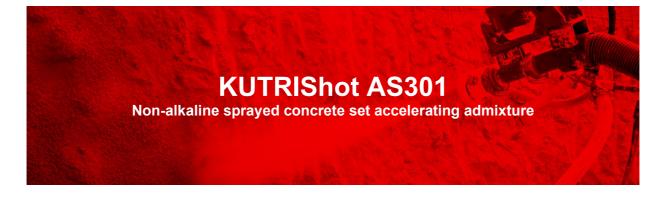


KUTRILIN





Description and scope

KUTRIShot AS301 is a highly efficient liquid non-alkaline set accelerator for sprayed concrete.

KUTRIShot AS301 is suitable for temporary and permanent rock support in tunneling, mining, underground structures, slope stabilization, and in unstable soil conditions.

It is best used for wet mix of sprayed concrete for rock support. Working progress is quick with the ability to create a thick layer of sprayed concrete.

KUTRIShot AS301 allow reduced rebound of concrete from the rock to which it is applied and reduces dust production, enables very fast setting with excellent development of "green" and early strengths as well as long-term strengths and durability.

KUTRIShot AS301 is non-aggressive and helps to improve work safety, helps in protecting the environment, which also affects reasons that reduce the cost of handling this product.

Application

KUTRIShot AS301 is a liquid additive that is easy to handle and achieves accurate dosing when added to concrete.

It is advisable to use **KUTRIShot AS301** with fresh cement to avoid influence on the setting characteristics of the concrete mix.

KUTRIShot AS301 works properly with Portland cement blended with fly ash and slag. It is recommended that preliminary tests be carried out to check setting time and 24 hour strength of the cement intended for the project.

Technical data: Form Color Density @ 20 ° C pH

Blurred suspension Beige to gray $1,43 \pm 0,01 \text{ g} / \text{ml}$ $3.0 \pm 1,0$



Dosage

KUTRIShot AS301 is used for wet spraying of concrete mix with v/c ratio of ≤ 0.55 . To achieve faster bonding and better early strengths, the v/c ratio should be ≤ 0.50 and for extremely high early strengths ≤ 0.44 .

The dosage depends on the temperature, reactivity of the binder and the required layer thickness, setting times and early strengths development.

Expected consumption is normally in the range of 4 to 8% on the amount of binder used. Dosing pumps must be thoroughly cleaned with water before concrete spraying process.

Dosage is approximately 6-8% for J2 class, and 8-10% for J3 class of "green" strenght (in accordance with ÖVBB-Richtlinie Spritzbeton, Ausgabe 12:2009).

Packing and storage

KUTRIShot AS301 must be stored at temperatures between +4 °C and +40 °C in sealed plastic, fiber reinforced plastic or non-corroding steel containers. If freezing occurs, the product needs to be thawed and mixed gently and will retains initial properties after this process.

If the **KUTRIShot AS301** is stored under the recommended conditions, the product will last for 6 months. If separation occurs (after 3 months), the product should be mixed briefly before use, thus not changing the properties or quality of the product.

KUTRIShot AS301 does not contain any hazardous substances that require special labeling. Avoid contact with eyes and skin when handling the **KUTRIShot AS301** and use of rubber gloves and goggles is recommended. If contact occurs, rine with large quantities of water.

Contact our advisers for any other information.

Replaces all previous releases for this product. Deceber, 2023.

CONFIRMATION OF CONFORMITY		DECLARATION OF PERFORMANCE 2477-CPR-2790-001	
2477 KUTRILIN d.o.o. 10000 Zagreb Radnička cesta 173P 13 2477-CPR-2790-001 HRN EN 934-5:2007 Non-alkaline sprayed concrete set accelerating		 Inique identification mark of product: KUTRIShot AS301 Intended use of the construction product acc to EN 934-2: Non-alkaline sprayed concrete set accelerating admixture Name, registered trade name or registered trademark and contact address of the producer: KUTRILIN d.o.o., Radnička cesta 173P, HR-10000 Zagreb The system or systems for assessing and verifying the stability of the properties of the construction product, as set out in Annex V.CPR: System 2+ The product is in compliance with the harmonized standard: EN 934-5:2007 Admixtures for concrete, mortar and grout - Part 5: Admixtures for sprayed concrete Name and identification number of the notified body: Institut IGH d.d., NB 2477 Evaluation of characteristics in relation to standard 	
admixtu		requirements	
KUTRIShot AS301		An imporatant feature	Property
Chloride ion content	≤0,1% by mass	Chloride ion content Alkali content	<i>≤0,1% by mass</i> <i>≤0,5% by mass</i>
Alkali content	≤0,5% by mass	Corrosion behaviour	No corrosion promotion effects on steel embedded in concrete
Corrosion behaviour	No corrosion	Compressive strenght	
promotion effects on steel embedded in concrete		T2	Pass
Hazardous substances	Do not content		Pass ed in item 1 is in compliance with n item 6. Only the producer

An imporatant feature	Property	
Chloride ion content	<i>≤0,1% by mass</i>	
Alkali content	<i>≤0,5% by mass</i>	
Corrosion behaviour	No corrosion promotion effects on steel embedded in concrete	
Compressive strenght T2	Pass	
Setting time T2	Pass	

th er designated in point 3 is responsible for issuing the declaration of performance.

December, 2023.