



KUTRILIN



### Description and scope

**KUTRIPlast W1000** is a liquid concrete admixture that allows concreting in winter conditions (at temperatures up to - 20 °C).

#### PHYSICAL - CHEMICAL CHARACTERISTICS

Appearance	Brown liquid
Density ( 20 °C ) , kg/m <sup>3</sup>	1330 ±30
pH value	6,0 ±1,0
Pour point , °C	below - 18
Chlorides	≤0,10 %

**KUTRIPlast W1000** lowers the freezing point of water and thus prevents freezing of the water used to prepare the concrete at negative outdoor temperatures. When the temperature reaches positive values (above + 5 °C), the hydration of the cement resumes, and also setting and hardening of the concrete.

Action of the **KUTRIPlast W1000** prevents the destruction of the concrete structure at negative temperatures during the period until the strength reaches a critical value.

**KUTRIPlast W1000** has a plasticizing effect because it lowers the surface tension of water and provides better wetting of cement and aggregates.

This enables the reduction of water in the concrete mass (by about 10%), which is another factor that reduces the risk of freezing water in the concrete.

These properties are also used in the production of waterproof concrete in winter conditions.

### Dosage

**KUTRIPlast W1000** is dosed 2 - 3%, by weight of cement, depending on the air temperature, the amount of cement and the weight of concrete.



Increased dosage (overdose) does not adversely affect the quality of the concrete and its behavior.

**KUTRIPlast W1000** is added to the concrete preparation water or directly into the concrete mixer.

### Application

**KUTRIPlast W1000** is chloride free and can be used for all types of concrete structures and does not promote corrosion effects on steel embedded in concrete.

**KUTRIPlast W1000** is used for concreting to an air temperature of -10 °C, taking into account:

- use cement with higher hydration heat and lower standard consistency
- use at least 300 kg of cement per m<sup>3</sup> of concrete
- do not use an engine that is frozen or mixed with snow
- use **KUTRIPlast W1000** plasticizing effect and prepare the concrete with reduced water content
- protect concrete from the direct effects of frost and wind (first 24 hours) in the case of thin structures

**KUTRIPlast W1000** is also used for plastering, but in this case maximum dosage of additives is required and great care is taken to protect freshly plastered surfaces.

Due to the relatively small thickness of the plaster, a smaller amount of the hydration heat of the cement is used, so there is a greater risk of freezing.

### Mixing with other additives

**KUTRIPlast W1000** can be combined with the **KUTRICrete** superplasticizer to prepare liquid, pumped concrete, or to take advantage of other properties of the superplasticizer.

Combination with additives that slow down the speed of setting and hardening of concrete should be avoided like **KUTRI Tard**.


### Packing and storage

**KUTRIPlast W1000** is durable for one year in tightly sealed packaging.

**KUTRIPlast W1000** is delivered in 50 kg cans, 200 kg barrels and 1000 kg IBC containers.

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



CONFIRMATION OF CONFORMITY	DECLARATION OF PERFORMANCE 2477-CPR-2790-007														
 2477	1. Inique identification mark of product: <b>KUTRIPlast W1000</b> 2. Intended use of the construction product acc to EN 934-2: <b>Water reducing/ plasticizing admixture</b> 3. Name, registered trade name or registered trademark and contact address of the producer: <b>KUTRILIN d.o.o., Radnička cesta 173P, HR-10000 Zagreb</b> 4. The system or systems for assessing and verifying the stability of the properties of the construction product, as set out in Annex V.CPR: <b>System 2+</b> 5. The product is in compliance with the harmonized standard: <b>EN 934-2:2009+A1:2012 Admixtures for concrete, mortar and grout - Part 2: Concrete admixtures</b> <b>Name and identification number of the notified body:</b> <b>Institut IGH d.d., NB 2477</b> 6. Evaluation of characteristics in relation to standard requirements														
<b>KUTRILIN d.o.o. 10000 Zagreb</b> <b>Radnička cesta 173P</b>  <b>14</b>  <b>2477-CPR-2790-007</b>															
<b>HRN EN 934-2:2012</b> <b>Water reducing/ plasticizing admixture</b> <b>KUTRIPlast W1000</b>															
<table border="0"> <tr> <td style="padding-right: 20px;">Chloride ion content</td> <td>≤0,1% by mass</td> </tr> <tr> <td>Alkali content</td> <td>≤6,0% by mass</td> </tr> <tr> <td>Corrosion behaviour promotion effects on steel embedded in concrete</td> <td>No corrosion</td> </tr> <tr> <td>Hazardous substances</td> <td>Do not content</td> </tr> </table>		Chloride ion content	≤0,1% by mass	Alkali content	≤6,0% by mass	Corrosion behaviour promotion effects on steel embedded in concrete	No corrosion	Hazardous substances	Do not content						
Chloride ion content		≤0,1% by mass													
Alkali content	≤6,0% by mass														
Corrosion behaviour promotion effects on steel embedded in concrete	No corrosion														
Hazardous substances	Do not content														
	<table border="1"> <thead> <tr> <th style="text-align: center;">An important feature</th> <th style="text-align: center;">Property</th> </tr> </thead> <tbody> <tr> <td>Chloride ion content</td> <td><i>≤0,1% by mass</i></td> </tr> <tr> <td>Alkali content</td> <td><i>≤6,0% by mass</i></td> </tr> <tr> <td>Corrosion behaviour</td> <td><i>No corrosion promotion effects on steel embedded in concrete</i></td> </tr> <tr> <td>Compressive strength T2</td> <td><i>Pass</i></td> </tr> <tr> <td>Air content in fresh concrete T2</td> <td><i>Pass</i></td> </tr> <tr> <td>Water reduction T2</td> <td><i>Pass</i></td> </tr> </tbody> </table>	An important feature	Property	Chloride ion content	<i>≤0,1% by mass</i>	Alkali content	<i>≤6,0% by mass</i>	Corrosion behaviour	<i>No corrosion promotion effects on steel embedded in concrete</i>	Compressive strength T2	<i>Pass</i>	Air content in fresh concrete T2	<i>Pass</i>	Water reduction T2	<i>Pass</i>
An important feature	Property														
Chloride ion content	<i>≤0,1% by mass</i>														
Alkali content	<i>≤6,0% by mass</i>														
Corrosion behaviour	<i>No corrosion promotion effects on steel embedded in concrete</i>														
Compressive strength T2	<i>Pass</i>														
Air content in fresh concrete T2	<i>Pass</i>														
Water reduction T2	<i>Pass</i>														

7. The product type described in item 1 is in compliance with the stated properties from item 6. Only the producer designated in point 3 is responsible for issuing the declaration of performance.

December, 2023.