

# AGOCEL<sup>®</sup> AC 4100

Low-dose high-efficiency sustainable rheology modifier for construction solutions

**CHT**  
SMART CHEMISTRY  
WITH CHARACTER.

# AGOCEL<sup>®</sup> AC 4100

## Sustainable rheology modifier

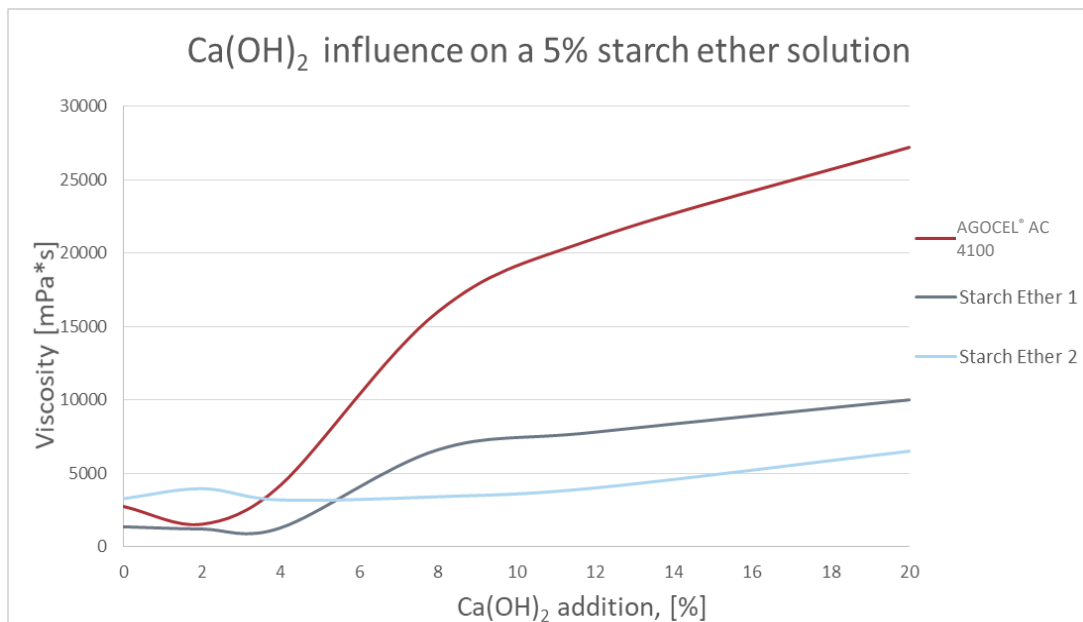
AGOCEL<sup>®</sup> AC 4100 is a modified potato starch ether that smartly combines best-in-class properties as an additive for mineral building materials with a green and sustainable solution.

AGOCEL<sup>®</sup> AC 4100 is a co-thickener that added in low dosage to dry mix formulations can decisively enhance several features of the system like improving the consistency, reducing the stickiness on the tools and giving to the final product a superior smoothness.

AGOCEL<sup>®</sup> AC 4100 is possible to achieve these properties without compromising the water retention of the final product.



stands out for the most-effective thickening behavior reachable in alkaline systems compared with other starch ethers on the market. This behavior reveals the outstanding consistency performances of AGOCEL<sup>®</sup> AC 4100 in the final product giving to our customers the possibility to use the lowest amount and achieve the highest performances, saving formulation costs.



Thanks to its outstanding compatibility with all the additives used in the dry mix mortar industry, AGOCEL<sup>®</sup> AC 4100 can be added to every gypsum, cement or lime system.

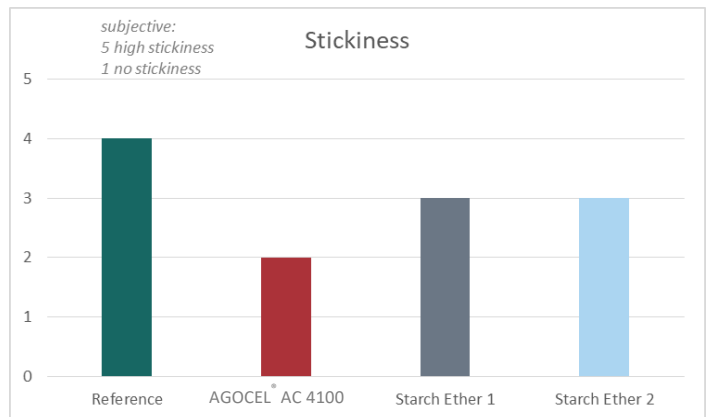
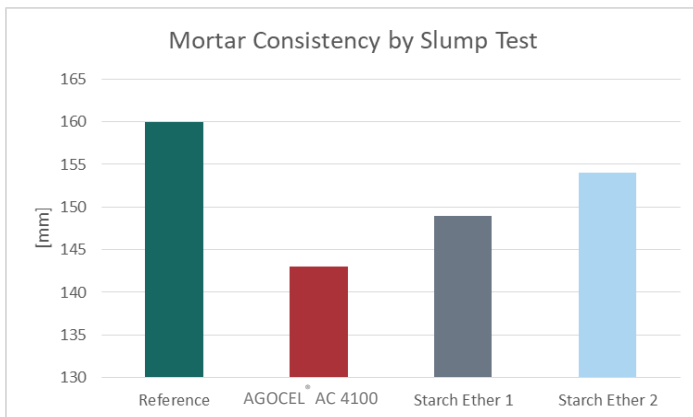
A typical application rate of AGOCEL<sup>®</sup> AC 4100 varies between 0,01% and 0,05%.

# Product performance

A cement based plaster formulation has been evaluated.

	Reference	AGOCEL® AC 4100	Starch Ether 1	Starch Ether 2
Cement CEM II 42,5 R	10,9	10,9	10,9	10,9
Limestone	20	20	20	20
Calcium Carbonate	66	65,98	65,98	65,98
Lime	3	3	3	3
Air Entraining Agent	0,02	0,02	0,02	0,02
Cellulose Ether	0,08	0,08	0,08	0,08
<b>AGOCEL® AC 4100</b>		<b>0,02</b>		
Starch Ether 1			0,02	
Starch Ether 2				0,02
	100	100	100	100
<i>water dosage</i>	<i>20%</i>	<i>20%</i>	<i>20%</i>	<i>20%</i>

Analyzing the performances of these systems is easy to observe how, comparing to the formulations without starch ethers and even comparing with other alternatives on the market, AGOCEL® AC 4100 brings the higher consistency and lower stickiness.



2% of water has been subsequently added to the AGOCEL® AC 4100 product to reach the same slump test consistency of the reference (160mm). An equal amount of product has been then applied on a vertical wall through steel rings. It is clear to observe how AGOCEL® AC 4100 provides a superior anti-sag behaviour improving the workability of the product.



# Overview

	<b>AGOCEL® AC 4100</b>
<b>Appearance</b>	White Powder
<b>Composition</b>	Modified Starch Ether
<b>Viscosity in Water (5% solution)</b>	2700 mPas
<b>Particle Size Distribution</b>	D <sub>10</sub> = 21,9 µm D <sub>50</sub> = 147 µm D <sub>90</sub> = 429 µm
<b>Anionic Charge</b>	688 meq/g
<b>Recommended dosage</b>	0,01 – 0,05 %

## Advantages

- Efficient at low dosage
- Consistency improvement
- Anti-sag properties
- Optimized workability
- Stickiness reduction
- Superior smoothness
- High compatibility with all other additives
- Sustainable material

## Application fields

- Plasters
- Tile Adhesives
- Joint Compounds
- Thermal Insulation Systems
- Gypsum, Cement and Lime systems

