



INSTITUT IGH, d.d./INSTITUTE IGH d.d.
Zavod za materijale i konstrukcije
Department for materials and structures
Laboratorij IGH, Laboratorij za veziva i ekologiju, 72580
Laboratory IGH, Laboratory for binders and ecology, 72580
ZAGREB 10 000, Janka Rakuše 1
Tel: +385 1/6125 144, Fax: +385 1/6125 100, www.institutigh.hr



RN: 62580888

TEST REPORT
English version of Croatian Test Report No.: 72580-A-45/20

Ordered by:

CorteCros d.o.o.
Nova Ves 57, HR-10000 Zagreb, Croatia

Contract/Order/Offer:

Offer No. 72580-0-0670/20 from 24th September 2020

Product:

Admixture MCI[®]-2005[#]

Manufacturer:

CorteCros d.o.o.
Nova Ves 57, HR-10000 Zagreb, Croatia[#]

Production plant/

Product Source:

-

Testing Properties:

General property of product in accordance Table 1 EN 934-1:2008
and influence of admixture on the setting time in accordance with
Table 8 EN 934-2:2009+A1:2012

Date of the Test Report:

15th December 2020

Authorization:

No applicable

Responsible for testing:


Kristina Dropučić, dipl.ing.

Head of Laboratory:

dr.sc. Marija Đuroković, dipl.ing.



1. GENERAL DATA

Ordered by:	CorteCros d.o.o. Nova Ves 57, HR-10000 Zagreb, Croatia
Testing laboratory:	Institute IGH d.d. Department for materials and structures Laboratory for binders and ecology J. Rakuše 1, HR-10 000 Zagreb, Croatia
Construction product:	Admixture MCI [®] -2005 [#]

2. DANA ABOUT SAMPLE

Sample Code:	MCI [®] -2005 [#]
Sample data:	Liquid sample in 1 liter PVC container.
Sampling Method:	Not defined
Sampling Place and Time:	Not defined
Taking sample in the laboratory:	The sample was submitted in the Laboratory for binders and ecology of Institute IGH d.d. 21 ^h October 2020 by representative of Laboratory for materials Institute IGH.

3. DANA ABOUT TESTING

Testing code:	A-45/20
Test Methods:	Test methods are specified in the table with test results in item 4.
Preparing of the sample:	The sample for tests was prepared in accordance with used Standards.
Used equipment:	Referent equipment stated in the standards for test methods regularly calibrated in accordance with calibration plan: Analytical balance Mettler Toledo XP204A, digital oven INKO, titrator Mettler Toledo DL53, pH-meter MPC-227, flame photometer Jenway PFP7, 50 ml glass pycnometer, glass volumetric glassware, precise balance Mettler Toledo PG6002S, laboratory mixer Toni Mix, humidity cabinet, Vicat apparatus, in accordance with EN 480-2, and flow table Form Test.
Laboratory conditions:	Ambient temperature: 20°C. Relative humidity: > 65 %
Referent Materials used:	Referent cement: CEM I 42,5R, Cemex Croatia d.o.o. (Cm-3/20) in accordance with EN 480-1:2015(Spec area 3660g/mc2 and C3A content 8,44 %) DIN Standard sand in accordance with EN 196-1. Deionized water and chemical reagents in accordance with requirements of used test methods Standards.
Date of testing:	From 2020-10-26 to 2020-12-15

4. TEST RESULTS

4.1 Physico-chemical property – Table 1 of the Standard EN 934-1:2008

Property	Test Method	Unit	Results
Color	Visual	-	Dark brown liquid
Homogeneity	Visual	-	Homogeneous
Relative density	ISO 758:1976 ⁽¹⁾	g/cm ³	1,202
Dry material content	EN 480-8:2012 ⁽¹⁾	%	43,23
pH-Value	ISO 4316:1997 ⁽¹⁾	-	10,38
Water soluble chloride	EN 480-10:2010 ⁽¹⁾	%	0,005
Alkali content (Na ₂ O equivalent)	EN 480-12:2005 ⁽¹⁾	%	4,25
Effective component	EN 480-6:2007 ⁽¹⁾	-	IR spectrum in attachment

4.2 Influence of admixture on the setting time

Influence of admixture on the setting time is determined in accordance with Standard EN 480-2:2007⁽¹⁾ on the reference mortar in accordance with Standard EN 480-1:2015, by comparative testing on the control mix, without admixture, and on the test mix with 0,21% of set retarding admixture MCI®-2005 on the mass of cement (0,6 L/m³ of concrete).

Property	Unit	Test results	
		Control mix	Test mix
Consistence of fresh mortar by flow	mm	224	232
Water / cement ratio (V/C)		0,50	0,49
Initial setting time	min	385	745
Difference of initial setting time		-	+ 360
Final setting time		455	830
Difference of final setting time		-	+ 376

NOTE:

¹⁾ Methods from a flexible scope of laboratory accreditation

Data submitted by Client

End of the test report

The Tests results refer to the sampled and tested sample

Test Report No.: 72580 -A-45/20

OBL510-01-72580_en

Page No. 3 od 3