Russian Exporter

TOKAR

SCIENTIFIC AND PRODUCTION ENTERPRISE

23 years of experience **8** patents **3** know-hows

HIGHLY EFFECTIVE MULTIFUNCTIONAL ADMIXTURE TO CONCRETE

D5 ЭКО

FOR THE PRODUCTION OF WATERPROOF CONCRETE
WITH INCREASED STRENGTH, SULFAT RESISTANCE AND DURABILITY

Over 23 years of experience in the development and production of high performance concrete admixtures

1998 Development of IR-1 - admixture for waterproof concretes

2000 Development and production of Extra - admixture for high strength concretes and concretes with accelerated strength setting

2005 Development and production of **D5 admixture** – for water resistant concretes and D11 admixture - for high strength concretes

2012 Modification of the improved admixture D5, to combine the best properties of the previous admixtures D5 and D11

2017 First D5 exports to Korea, Kazakhstan and New Zealand

2021 At the request of our partners in New Zealand, we have developed the **D5 GREEN** admixture, which has a greater increase in the strength of concrete and a greater ability to reduce the consumption of cement in concrete to reduce the carbon in concrete.

- **First D5 exports to Azerbaijan**

Patented technology

The admixture is made of naturally occurring minerals, including **active pozzolans , rocks and**

- Does not contain cement
- Does not contain silica fume
- Does not contain fly ash
- Does not contain chlorine

РОССИЙСКАЯ ФЕДЕРАЦИЯ

ПАТЕНТ

НА ИЗОБРЕТЕНИЕ

№ 2177459

КОМПЛЕКСНАЯ ДОБАВКА ДЛЯ ЦЕМЕНТА, БЕТОНА, РАСТВОРА, СУХОЙ СМЕСИ И ТАМПОНАЖНОГО МАТЕРИАЛА

Базоев Олег Казбекович

Базоев Олег Казбекович

Патент действует на всей территории Российской Федерации в течение 20 лет с 12 октября 2000 г.

г. Москва, 27 декабря 2001 г.

РОССИЙСКАЯ ФЕДЕРАЦИЯ

РОССИЙСКОЕ АГЕНТСТВО ПО ПАТЕНТАМ И ТОВАРНЫМ ЗНАКАМ

ПАТЕНТ

НА ИЗОБРЕТЕНИЕ

№ 2144909

ВОДОНЕПРОНИЦАЕМЫЙ БЕТОН БАЗОЕВА

Базоев Олег Казбекович

Базоев Олег Казбекович

Патент действует на всей территории Российской Федерации в течение 20 лет с 12 февраля 1999 г.

г. Москва, 27 января 2000 г.

Properties of concretes with admixture D5

Water tightness

Sulphate resistance

Strength

Acceleration of the strength gain process

Frost resistance

Plasticising pumpability

Air entrainment

Self-healing of through cracks

Ecological compatibility

No additional waterproofing is required

- D5 provides the concretes with highest possible **water resistance W20 (20 Bar) and above** (up to **W34)** and **sulphate-resistance.** These properties are preserved for the entire service life of concrete.

- Concretes with D5 can be used in **water-saturated soils or directly in water without any additional waterproofing**, even in toxic environments, including sea water or sewage

W34 (34 Bar) !

water resistance of concrete with D5 admixture

Испытательная лаборатория: ИЛ "НВ-Стройиспытания"
наименование испытательного центра (лаборатории)

в составе: ООО "ВНИИСТРОМ-НВ"
140050, п. Красково, Московская обл., ул. К. Маркса, 117
наименование юридического лица

Аттестат аккредитации № РОСС RU.0001.21СА07

ПРОТОКОЛ ИСПЫТАНИЙ № 157И

«19» сентября 2016 года

Наименование продукции: Комплексная полифункциональная добавка «Д-5»

Заказчик: ООО «НПП «ТОКАР»
362002, г. Владикавказ, ул. Пожарского, д. 19 «а»

Сведения об испытанных образцах: Объединенная проба добавки «Д-5» в порошкообразном виде – 1 кг (дата изготовления: 20.07.2016 г., партия №105).

Состав бетонной смеси: Цем I 42,5 – 350 кг/м³; песок Мкр 2 – 850 кг/м³, щебень гранитный смеси фракций св. 5 до 20 мм – 1100 кг/м³, добавка Д-5 – 10,5 кг/м³ (3 % от массы цемента), вода – 170 л/м³, В/Ц–0,486. Подвижность бетонной смеси П3 (ОК = 14 см). Бетонную смесь укладывали в обоймы, уплотняли штыкованием и выдерживали 28 суток в нормальных условиях (W > 90 %, t = 21 °С)

Регистрационные данные испытательного центра (лаборатории): 16.145(1)И

Цель испытаний: Определение показателей: «водонепроницаемость бетона при дозировке добавки 3 % от массы цемента».

Методика испытания: ГОСТ 12730.5-84 «Бетоны. Методы определения водонепроницаемости», п.2 «Определение водонепроницаемости по мокрому пятну». Бетонные образцы и обоймы для них имеют вид усеченного конуса высотой 150 мм, средним диаметром 150 мм. Установка имеет 6 гнезд для крепления образцов и обеспечивает возможность подачи воды к нижней торцевой поверхности образцов при регулируемом возрастающем до 4 МПа (40 атм) давлении. Верхняя торцевая поверхность образцов, диаметром 140 мм открыта для наблюдений. **Давление воды повышали ступенями по 0,2 МПа (2 атм) с выдержкой на каждой ступени 24 часа.**

Условия испытаний: t= 21 °С, W=61 %

Дата поступления: 27.07.2016 г.

Дата испытания: 27.07.2016 г. – 16.09.2016 г.

РЕЗУЛЬТАТЫ ИСПЫТАНИЙ: 1. Испытанные образцы с добавкой Д-5 в количестве 3 % от массы цемента выдержали давление воды 3,5 МПа (35 атм) без признаков фильтрации воды. Высота увлажненной части бетона в образцах при их раскалывании от 30 до 35 мм.

Испытания провел: ведущий научный сотрудник В.Н. Хохлов

Руководитель испытательной лаборатории А.А. Куприна

М.П.

Water and Sulphate resistance

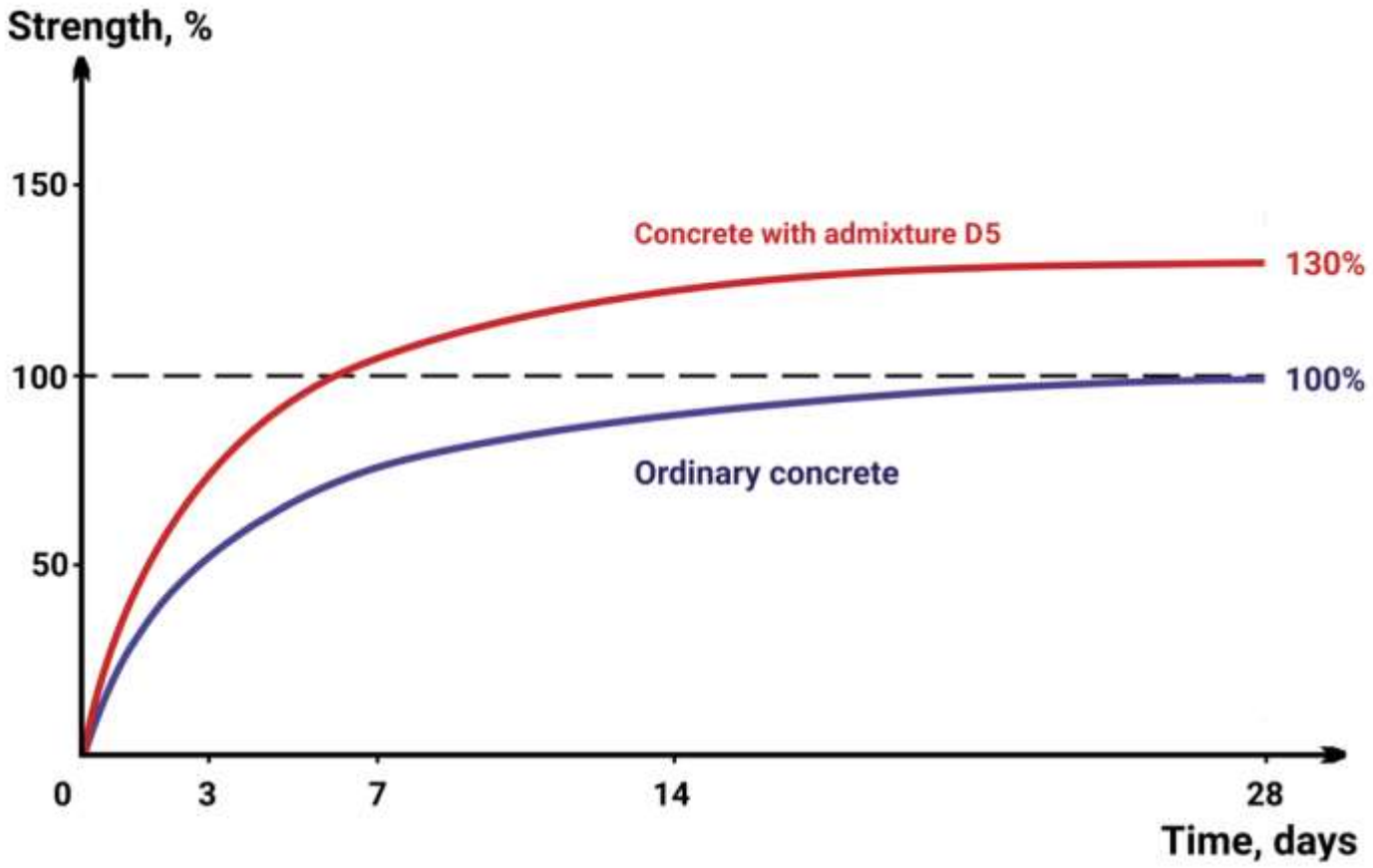
- The D5 admixture **makes it possible to obtain sulfate-resistant concretes on ordinary Portland Cement,** while the sulfate resistance of concrete increases by 3-4 times

- In most cases, **this excludes the use of additional waterproofing of concrete** during its operation in an aggressive environment, including domestic sewage, seawater, oil and petroleum products

The Influence effect of the D5 admixture on the strength and rate of concrete strength gain

- Admixture D5 **accelerates strength setting time of concrete by up to 4 times** (**100% strength is achieved on 7th day of setting under normal conditions)**

- Increases **the strength** of concrete at 28 days by **30%** compared to concrete with no other additives (in mixtures of equal slump)



Admixture D5 has been successfully tested in New Zealand and Australia

This information is provided by NEOCRETE Company, our official representative and exclusive distributor in New Zealand and Australia

1. CONCRETE STRENGTH TESTS PERFORMED AT THE AGE OF 1, 3, 7, 28, 56 AND 416 DAYS

Sample	1 day	3 days	7 days	28 days	56 days	416 days
Control concrete (without D5)	9 (MPa)	22,5 (MPa)	31,5 (MPa)	**43,5 (MPa)**	48,5 (MPa)	57 (MPa)
2% D5	15,5 (MPa)	27,5 (MPa)	40 (MPa)	54 (MPa)	56 (MPa)	67 (MPa)
3% D5	22 (MPa)	37 (MPa)	**47,5 (MPa)**	58,5 (MPa)	62 (MPa)	**78,5 (MPa)**

IANZ ACCREDITED LABORATORY

2. CONCRETE TESTS FOR WATER PERMEABILITY

Samples with D5 (at 2% and 3% of cement) were put under constant water pressure of 5 atmospheres for 3 days:

- **The maximum depth of water penetration in samples was 5 mm**

NATA WORLD RECOGNISED ACCREDITATION

TOKAR SCIENTIFIC AND PRODUCTION ENTERPRISE

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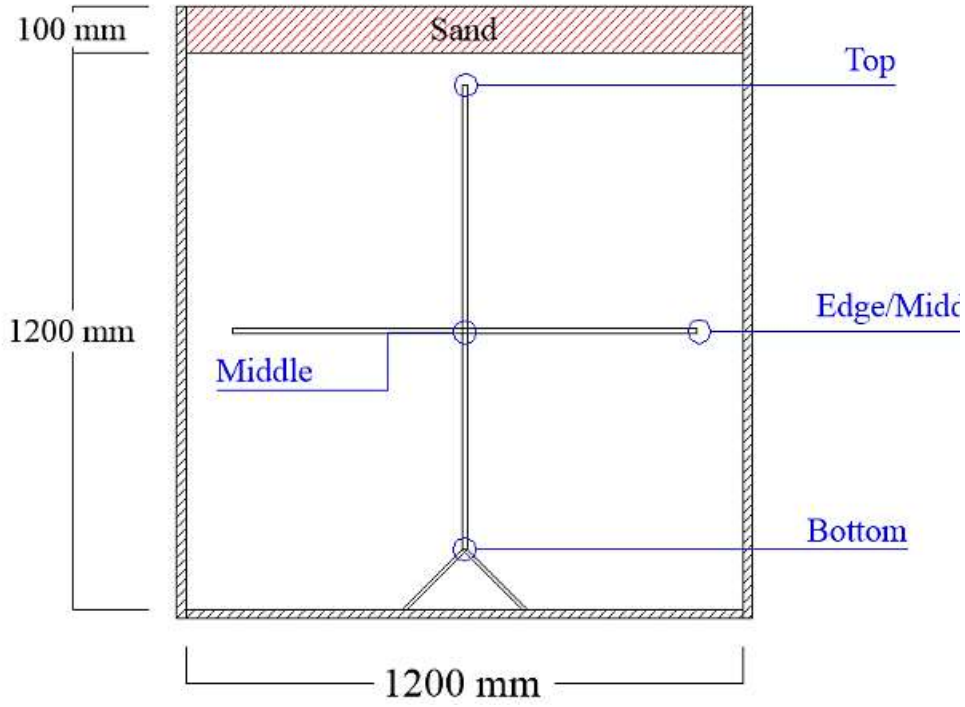
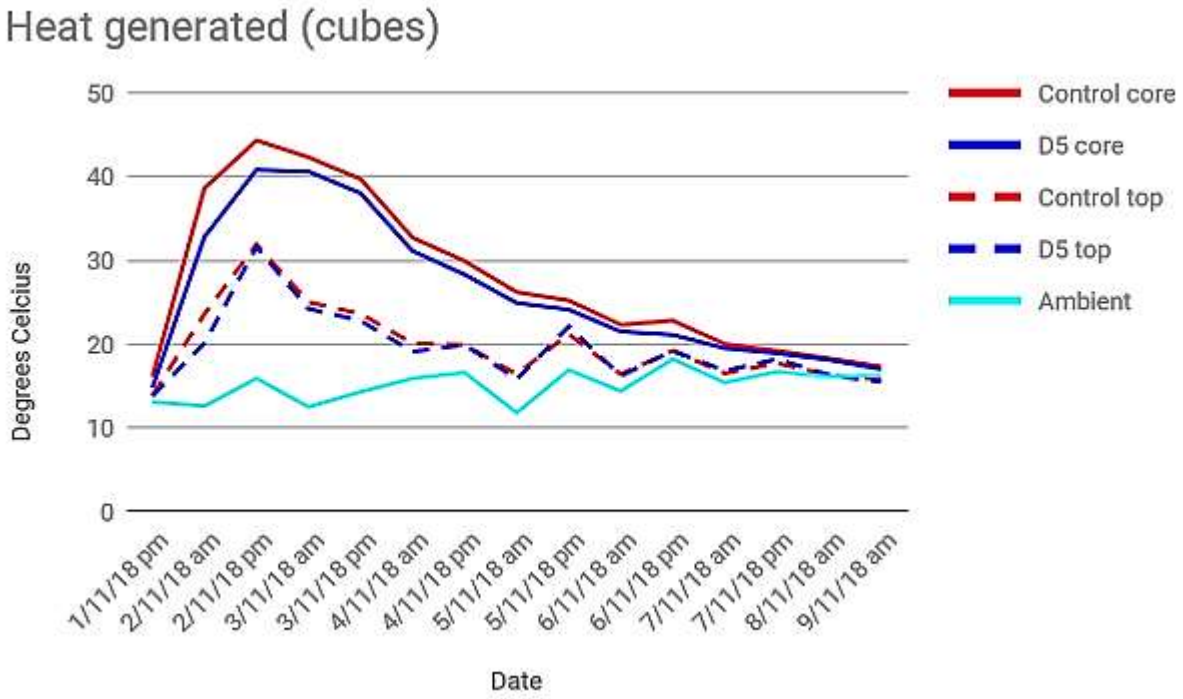
COMPARATIVE TESTS OF CONCRETE FOR HEAT RELEASE

showed that concrete with D5 emits less heat than control concrete (without D5)

The scheme of location of temperature sensors



Graph of concrete temperature changes



Plasticizing, water-retaining properties and improves pumpability

- The D5 admixture increases the slump of concrete mixes from P1 to P5, or **reduces water consumption by 20-30%** in mixes of equal slump (equal cosistence)

- The D5 admixture gives concrete mixtures a **moisture-retaining ability, prevents their delamination and improves pumpability**

Production of a foundation for a private house made of waterproof concrete with D5 admixture in the vicinity of the city of Nelson (New Zealand)

Frost resistance and air entrainment

Improves frost-resistance by at least 2 grades, allows to achieve concrete of **over F400 grade**

Increases air entrainment of concrete by up to 2-3% on SEMI cements and by up **to 4 - 6%** on SEMII cements containing slag

Results of D5 tests to increase frost resistancee

- **Concrete with D5 admixture (3% by cement weight) of class B30W12F400 showed frost resistance of F400 with a large margin**

Филиал ОАО «ЭСКО ЕЭС - «Дирекция Строящейся Загорской ГАЭС-2»
Центральная Строительная Лаборатория
(Свидетельство о состоянии измерений в лаборатории №936 от 21.12.2009г.)

ПРОТОКОЛ № 8 от «20» июня 2011 г.
Испытание бетонных образцов на морозостойкость
по ГОСТ 10060.0-95 и ГОСТ 10060.2-95

Испытательная машина - камера тепла и холода КТХ. Паспорт 610-0020
Свидетельство об аттестации № 06./045-11 до7 февраля 2012г.

1. Сведения об образцах - *бетонные образцы-кубы размером 10×10×10см в количестве 12шт.*
2. Маркировка образцов - *Л-67 Д-5*
2. Предоставлены организацией - *Изготовлены в лаборатории ЦСЛ*
3. Класс бетона и № состава *B30 28 W12 180 F400 28*
4. Наименование конструктива - *Опытный замес*
5. Методика испытания - *третий метод испытаний по ГОСТ 10060.2-95*

Резутьтаты испытаний

Сведения об образцах		Дата испытания	Количество циклов попеременного замораживания-оттаивания (значение по табл.3 ГОСТ 10060.0)	Предел прочности при сжатии, МПа				Потеря прочности после испытаний, %
маркировка	дата изготовления			контрольных образцов		Основных образцов после попеременного замораживания-оттаивания		
1	2	3	4	5		6		7
Л-67 Д-5	12.05.2011	19.06.2011	12(F400)	37,7	**46,5**	**45,5**	**47,1**	нет
				41,4	**42,3**	42,5	**43,7**	
				38,0	**40,3**	**44,2**	35,6	
			ср зн	**42,6**		**45,1**		

Примечание: по ГОСТ 10180-90-прочность бетона в серии образцов определяют как среднее арифметическое по 4-м наибольшим результатам по прочности.

ЗАКЛЮЧЕНИЕ *1) Потери прочности после испытания нет.*
2) Класс бетона после испытаний соответствует проектному.

Начальник ЦСЛ Семенова Л.М

Self-healing of cracks up to 0.5 mm wide

Self-healing (sealing) of through cracks up to 0.5 mm wide that may appear in structures due to dynamic loads, including seismic ones. Mandatory condition: filtration of water through cracks

Cold joints do not leak!

Due to the effect of self-healing, **"cold" joints do not leak even during long breaks in concreting** (up to 30 days or more). Simply clean the surface of previously laid concrete from the cement crust, expose the structure of the concrete, wash off the dust and small particles with water and water the concrete surface. This is sufficient to seal the cold joint and **there is no need for bentonite cords, keys or ultraband**

Ecological compatibility

- Admixture D5 does not contain components that are dangerous to cement stone and rebar, **does not form toxic compounds** in **air or water**
- Approved for the production of concrete and reinforced concrete structures **in contact with drinking water, including in water treatment systems**
- It is used in the manufacture of **swimming pools and pools for breeding valuable fish**
- **An environmental certificate of conformity has been obtained** May 25 , 2021

Additional property

- The D5 admixture **is not aggressive towards reinforcing steel**, does not cause its corrosion, enhances the passivating properties of concrete in relation to reinforcement and **is recommended for use in reinforced concrete constructions of Important and responsible structures** (Conclusion of the NIIZHB).

- The D5 admixture **increases the adhesion of concrete to reinforcement by 36%** (Conclusion of the NIIZHB).

- The D5 admixture **increases the adhesion strength to old concrete by 1.9 times or by 90%** compared to the adhesion strength of ordinary concrete without an additive

НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ, ПРОЕКТНО-КОНСТРУКТОРСКИЙ И ТЕХНОЛОГИЧЕСКИЙ ИНСТИТУТ БЕТОНА И ЖЕЛЕЗОБЕТОНА-ФИЛИАЛ ФГУП «НИЦ «СТРОИТЕЛЬСТВО» («НИИЖБ»)

УТВЕРЖДАЮ
Директор НИИЖБ
Семченков А.С.
«__» _____ 2006г.

Заключение
по результатам испытаний новой универсальной добавки к бетону серии «Д» на коррозию арматуры в бетоне, сцепление арматуры с бетоном и адгезии к старому бетону
(х/д № 327/13-109-06/ЖБ)

Зав. лабораторией коррозии и долговечности бетонных и железобетонных конструкций, д.т.н., проф. Степанова В.Ф.

Научные сотрудники Зимина Т.Л.
Харитонова Л.П.

Result for concretes ability to resist chloride ion penetration in VIETNAM

- **Concretes with D5 admixture have Very Low penetration for chloride ions**

438 < 1000 at a dosage of 3%
512 < 1000 at a dosage of 2%

VIETNAM INSTITUTE FOR BUILDING MATERIALS (VIBM)

LAS-XD 1133 LABORATORY
Cement and Concrete Center

BỘ XÂY DỰNG
VIỆN VẬT LIỆU XÂY DỰNG
PHÒNG THÍ NGHIỆM LAS-XD 1133 (ISO/IEC 17025:2017) - TRUNG TÂM XI MĂNG & BÊ TÔNG
VIETNAM INSTITUTE FOR BUILDING MATERIALS (VIBM)
LAS-XD 1133 LABORATORY - CEMENT AND CONCRETE CENTER
Địa chỉ (Address): 235 đường Nguyễn Trãi, P. Thanh Xuân Trung, Q. Thanh Xuân, TP. Hà Nội
Điện thoại (Tel): 024.38582915; Fax: 024.38581112; Email: viennvlxd@vibm.vn; Web: www.vibm.vn

PHIẾU KẾT QUẢ THỬ NGHIỆM

TEST REPORT

Số (No): ...../VLXD-XMBT

Số phiếu (Reg. No): 27/10/2020/XMBT-HĐ/K-M5-Thấm ion clo-02

1. Đơn vị yêu cầu (Client): CÔNG TY CỔ PHẦN TẬP ĐOÀN K-MS
2. Địa chỉ (Address): SỐ 62 NGUYỄN HUY TƯỞNG, QUẬN THANH XUÂN, TP. HÀ NỘI
3. Dự án (Project): PHỤ GIA D5 SỬ DỤNG CHO BÊ TÔNG NƯỚC BIỂN
4. Loại mẫu (Kind of samples): Bê tông tụ 100×200 (mm)
5. Phương pháp thử (Test method): TCVN 9337:2012
6. Ngày lấy mẫu (Sampling date): 27/10/2020
7. Ngày thí nghiệm (Date of testing): 04/12/2020

KẾT QUẢ ĐỘ CHỐNG THẤM ION CLO BẰNG PHƯƠNG PHÁP ĐO ĐIỆN LƯỢNG

RESULT FOR CONCRETE'S ABILITY TO RESIST CHLORIDE ION PENETRATION

Stt (No)	Ký hiệu mẫu (Mark of samples)	Đơn vị (Unit)	Kết quả (Results)		Đánh giá theo TCVN 9337:2012 (Classification according to TCVN 9337:2012)	
			Điện lượng truyền qua mẫu (Charge Passed)	Trung bình (Average)	Điện lượng truyền qua mẫu (Charge Passed)	Mức độ thấm ion clo (Chloride Ion Penetrability)
M1	Mẫu dùng phụ gia + nước ngọt	Culông (Coulomb)	435	438	>4000	Cao (High)
M2			432		2000÷4000	Trung bình (Moderate)
M3			447		1000÷2000	Thấp (Low)
					100÷1000	Rất thấp (Very Low)
					<100	Không đáng kể (Negligible)

*Nhận xét (Remark): Kết quả độ chống thấm ion clo bằng phương pháp đo điện lượng của mẫu bê tông ở mức rất thấp (Result for Concrete's Ability to Resist Chloride Ion Penetration is very low).

Hà Nội, ngày (Date): 08/12/2020

Viện Vật liệu xây dựng VIBM — PTN LAS-XD 1133 - Trung tâm XM&BT LAS-XD 1133 - Cement and Concrete Center — Thí nghiệm Tested by

Nguyễn Văn Đoàn — Vũ Hải Quang

*Ghi chú (Note):
- Mẫu do khách hàng mang đến Viện Vật liệu xây dựng (Sample were sent to VIBM).
- Tên mẫu và cơ quan gửi mẫu được lấy của theo yêu cầu của khách hàng (Name of sample and client are reported as client's request).
- Kết quả thử nghiệm chỉ có giá trị tới mẫu thử (The test report valid for sample only).
- Không được sao chép từng phần, được sao chép toàn bộ phiếu kết quả này (This test report not be reproduced, except in full).

BỘ XÂY DỰNG
VIỆN VẬT LIỆU XÂY DỰNG
PHÒNG THÍ NGHIỆM LAS-XD 1133 (ISO/IEC 17025:2017) - TRUNG TÂM XI MĂNG & BÊ TÔNG
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Điện thoại (Tel): 024.38582915; Fax: 024.38581112; Email: viennvlxd@vibm.vn; Web: www.vibm.vn

PHIẾU KẾT QUẢ THỬ NGHIỆM

TEST REPORT

Số (No): ...../VLXD-XMBT

Số phiếu (Reg. No): 27/10/2020/XMBT-HĐ/K-M5-Thấm ion clo-03

1. Đơn vị yêu cầu (Client): CÔNG TY CỔ PHẦN TẬP ĐOÀN K-MS
2. Địa chỉ (Address): SỐ 62 NGUYỄN HUY TƯỞNG, QUẬN THANH XUÂN, TP. HÀ NỘI
3. Dự án (Project): PHỤ GIA D5 SỬ DỤNG CHO BÊ TÔNG NƯỚC BIỂN
4. Loại mẫu (Kind of samples): Bê tông tụ 100×200 (mm)
5. Phương pháp thử (Test method): TCVN 9337:2012
6. Ngày lấy mẫu (Sampling date): 27/10/2020
7. Ngày thí nghiệm (Date of testing): 05/12/2020

KẾT QUẢ ĐỘ CHỐNG THẤM ION CLO BẰNG PHƯƠNG PHÁP ĐO ĐIỆN LƯỢNG

RESULT FOR CONCRETE'S ABILITY TO RESIST CHLORIDE ION PENETRATION

Stt (No)	Ký hiệu mẫu (Mark of samples)	Đơn vị (Unit)	Kết quả (Results)		Đánh giá theo TCVN 9337:2012 (Classification according to TCVN 9337:2012)	
			Điện lượng truyền qua mẫu (Charge Passed)	Trung bình (Average)	Điện lượng truyền qua mẫu (Charge Passed)	Mức độ thấm ion clo (Chloride Ion Penetrability)
M1	Mẫu dùng phụ gia + nước biển	Culông (Coulomb)	469	512	>4000	Cao (High)
M2			539		2000÷4000	Trung bình (Moderate)
M3			528		1000÷2000	Thấp (Low)
					100÷1000	Rất thấp (Very Low)
					<100	Không đáng kể (Negligible)

*Nhận xét (Remark): Kết quả độ chống thấm ion clo bằng phương pháp đo điện lượng của mẫu bê tông ở mức rất thấp (Result for Concrete's Ability to Resist Chloride Ion Penetration is very low).

Hà Nội, ngày (Date): 09/12/2020

Viện Vật liệu xây dựng VIBM — PTN LAS-XD 1133 - Trung tâm XM&BT LAS-XD 1133 - Cement and Concrete Center — Thí nghiệm Tested by

Nguyễn Văn Đoàn — Vũ Hải Quang

*Ghi chú (Note):
- Mẫu do khách hàng mang đến Viện Vật liệu xây dựng (Sample were sent to VIBM).
- Tên mẫu và cơ quan gửi mẫu được lấy của theo yêu cầu của khách hàng (Name of sample and client are reported as client's request).
- Kết quả thử nghiệm chỉ có giá trị tới mẫu thử (The test report valid for sample only).
- Không được sao chép từng phần, được sao chép toàn bộ phiếu kết quả này (This test report not be reproduced, except in full).

Recommendations for the D5 admixture use

- The recommended dosage of D5 admixture is **2-3% by cement weight** and is selected depending on the required concrete parameters and based on preliminary tests on local cements and aggregates

- D5 is introduced into the concrete mixer **in a dry form** together with sand or cement

- Mixing time is **45-120 seconds** (depending on the type of mixer and the desired flowability of the concrete mix)

- **During breaks in concreting**, the surface of previously laid concrete (with D5 admixture) in the place of the future "cold" seam should be immediately after the concrete solidification (6-8 hours after pouring) to clean the concrete from the cement crust, expose the concrete structure, wash off dust and fine particles with water and abundantly moisten the concrete in this place;

  - **after a break in concreting** (which can reach from several days to several weeks), immediately before laying the concrete mix with the D5 admixture, you will need to rinse the place of the "cold seam" with water again to wash off dust, sawdust and other dirt from the surface earlier stripped concrete).

When these conditions are met, high adhesion and fusion at the molecular level between the hardened and freshly laid concrete with D5 admixture will be ensured and **high water resistance of "cold" technological joints (both vertical and horizontal) will be achieved**

Vertical and horizontal "cold" seams do not leak

Packing

- **15 kg paper valve bags**, palletized, covered with foil and strapped with straps
- **Big bags of 1000 kg,** stacked on pallets and tightened with fastening straps

Shelf life

- At least 36 months in the original packaging

Advantages of using D5

compared to bituminous, pasting, coating, injection and other types of waterproofing

Save costs

Achieve costs savings through:

- exclusion of external waterproofing of underground parts of buildings;
- reducing construction time

Simplify the process of construction

Achieve reliable waterproofing of the supporting structure in one technological step

Improve the quality of construction

In addition to waterproofing properties, D5 improves other characteristics of reinforced concrete structures (strength, frost-resistance, sulphate-resistance, durability)

Reduce time of construction by 10-15%

Reduce time by:

- removing additional waterproofing works
- reducing time in formwork of precast concrete for supporting structures

Competitive advantages of admixture D5 in comparison with Russian and foreign analogues

Comparative measure	D5	American analogue	Canadian analogue	Russian analogue
Dosage in % per 1 m3 of concrete	2-3%	1%	2%	1,5%
Increased water resistance	**4 grades**	3 grades	2 grades	2 grades
Increased strength	**30%**	**7%**	**10%**	**-**
Increased frost resistance (minimum cycles)	100	100	100	100
Increased sulphate-resistance	+	+	+	+
Application for potable water reservoirs	+	+	+	+
Increased air entrainment	2%-4%	2%	-	-
Plasticising properties	**+**	-	-	-
Sealing cold joints, without additional materials	**+**	**Requires bentonite cord**	**-**	**Requires bentonite cord ore an ultraband**

D5 is more profitable in comparison with traditional waterproofing methods

- **Saving money**

  Due to the complete elimination of external waterproofing of underground parts of buildings and by reducing the time construction due to a quick set of project information concrete strength

- **Improves the quality of construction**

  In addition to providing high waterproofing of concrete, the d-5 additive increases the performance properties of reinforced concrete structures (strength, frost resistance, sulphate resistance, durability)

- **Simplifies construction technology**

  A load-bearing structure and reliable waterproofing are produced in one technological step

- **Reduces construction time by 15%**

  Due to the exclusion of waterproofing works and by reducing the holding time in the concrete formwork of load bearing structures

D5 is more efficient and cheaper world analogues manufacturers'

- **Cheaper than analogues of well-known world manufacturers of waterproof additives**

  On average, 1.5-2 times

- **More effective in several ways**

  Water tightness

  Increasing the strength of concrete

  Air extraction

  Plasticizing properties

- **Simple to use**

  No need to pre-dilute with water Is added immediately at the concrete plant

  In the "cold" seams does not require the use of dowels, cords and ultraband

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D5 can be used in all areas of construction

Foundations for all types of buildings and structures

Underground car parks and passageways

Tunnels

Dams

Bridges

Fish farms

Swimming pools

Water treatment facilities

Potable water tanks

Tanks with oil and petroleum products

Toxic waste storage facilities

Precast concrete

Projects with D5

Repair of bridge over the Don river in Rostov-on-Don

Swimming pool in Beslan

Multi-storey building with 3 underground floors on the Bank of the Don river

Caspian flat glass plant - reinforced concrete silos

Reconstruction of Ezmi-Hydro Power Plant. North Ossetia-Alania

Reconstruction of shores Ezmi-Hydro Power Plant reservoirs

Fire fighters' reservoir in Vladikavkaz

Sewage treatment plants in Beslan

RusHydro project (our biggest project): Construction of the derivation tunnel No. 2 at the Zaramag Hydro Power Station

- **The tunnel is 14.2 km long**. **The construction lasted for 9 years. The volume of placed concrete with D5 was over 140 000 m3**
- The Customer constantly monitored the quality of concrete with D5. During the entire construction period, there were no complaints on the quality of concrete with D5. All actual concrete quality indicators were higher than the design ones
- Zaramagskaya Hydro Power Plant was put into operation n February 2020

We guarantee the high quality of our products

The company has implemented ISO-9001-2015 quality management system

Own test laboratory and internal department of scientific development and quality control

Own patented technologies for the production of concrete additives

Product quality control at every stage of production

Highly qualified specialists

High quality is confirmed by certificates :

- Certificate of conformity of the Russian Federation
- Certificate of conformity of the New Zealand
- ISO certificate of conformity
- Certificate of state registration
- Certificate of radiation quality
- Environmental certificate of conformity

Our Awards

ТОКАР

TOKAR
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Scientific and production enterprise «TOKAR» Co., Ltd

19A, Pozharskogo Street, Vladikavkaz,

Republic of North Ossetia- Alania, 362002, Russia

Tel: +7 8672 511 773

WhatsApp: **+7 938 883 1037**

E-mail: dobavkad5@mail.ru

www.d5-tokar.ru