



Mobile pavement production
Polimerteh LLC

POLIMERTEH

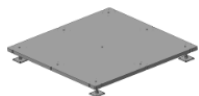
KDM REUSABLE POLYMER ROAD SURFACE
MATS

2019

OUR PRODUCTS



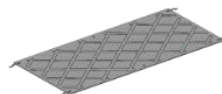
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ADJUSTABLE MODULAR FLOORING

up to 0.75 t

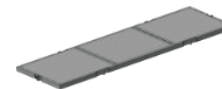
- // EVENT FLOORING (EXPOS)
- // INDUSTRIAL FLOORING
- // INDUSTRIAL ENGINEERING FLOORING



**ROAD COMPOSITE MATS
KDM ISOLIGHT**

up to 40 t

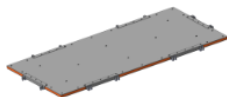
- // SOIL PROTECTION
- // TEMPORARY ROADWAYS
- // AREA FACILITIES CONSTRUCTION



**TUNDRAMAT
BUROVIK**

up to 600 t

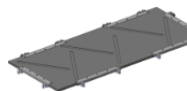
- // DRILLING RIG FOUNDATIONS
- // TEMPORARY CONSTRUCTION SITES



**KDM
MOBIKOM 1 (2)**

up to 50 t

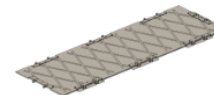
- // TEMPORARY ROADS AND SITES ON SENSITIVE TERRAINS AND WETLANDS



**SDRP-M REUSABLE POLYMER
ROAD MATS**

up to 40 t

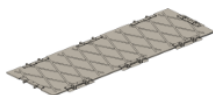
- // TEMPORARY ROADS AND SITES ON SENSITIVE TERRAINS AND WETLANDS CONSTRUCTED EASILY WITH NO SPECIAL MACHINERY INVOLVED



**KDM EKS COMPOSITE
ROAD MAT**

up to 60 t

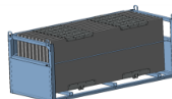
- // TEMPORARY ROADS AND SITES ON SENSITIVE TERRAINS AND WETLANDS



**KDM EKS
COMPOSITE ROAD MAT**

up to 120 t

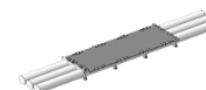
- // TEMPORARY ROADS AND SITES ON SENSITIVE TERRAINS AND WETLANDS



**MULTIPURPOSE AUTO INSTALLED
ROAD KIT**

up to 50 t

- // ARRANGEMENT OF QUICK ACCESS WITH AUTO METHOD
- // ROADS FOR WHEEL AND CATERPILLAR MACHINERY IN DIFFICULT-TO ACCESS TERRAINS AND MARSHES



**KDO-3 COMPOSITE ROAD
FOUNDATION**

up to 40 t

- // ROADS FOR RESCUE TEAMS, CONSTRUCTION AND HEAVY-DUTY MACHINERY IN WETLANDS AND CAT 3 MARSHES



EXAMPLES OF REUSABLE POLYMER ROAD PANELS

KDM-ISOTRACK	KDM-EKS	KDM-ISOLIGHT
		
4,000 mm x 2,000 mm	6,000 mm x 2,000 mm 4,500 mm x 1,500 mm 2,000 mm x 1,000 mm	2,400 mm x 1,200 mm
Construction of access roads and sites for up to 150 t heavy-duty machinery on unstable soil including Cat 1 and 2 marshes without the need for pre-arranged foundation.	Construction of access roads and sites for up to 120 t heavy-duty machinery on unstable soil including Cat 1 and 2 marshes without the need for pre-arranged foundation.	soil protection for wheel and caterpillar machinery up to 40 t on stable soil.



MOST COMMON ISSUES

- // Adverse soil and terrain conditions
- // Lack of permanent roads along engineering lines
- // Dominant marshes and sensitive soils
- // Increased time for emergency jobs
- // Struggling to bring materials and remove waste
- // Machinery failing and getting lost
- // Increased costs
- // Injuries

CONVENTIONAL SOLUTIONS

- // **CONS:**
 - ▶ Time and effort consuming with a lot of machinery involved
 - ▶ Inefficient for temporary roads and remote areas
 - ▶ Not environmentally friendly



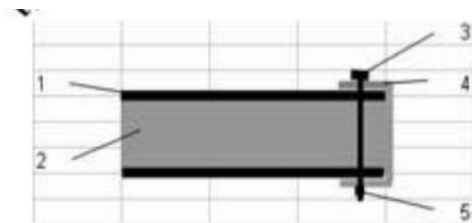


**HISTORIC
REFERENCE**

// **19th century:** Laying of timber



// **1965:** Reusable road mats





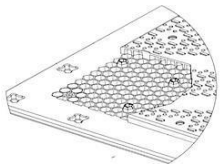
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KDM-ISOTRACK COMPOSITE ROAD MAT

- // Fabricated by pressing of 500 Grade high molecular polyethylene



- // Internal cells filled with foam polyethylene ensure maximum durability, stiffness and positive buoyancy



- // KDM-Isotrack is an HMWPE pressed panel, 2,000 mm x 4,000 mm x 100 mm, 400 kg, with installation holes on each side for connection with a site or a road.



NON
BIODEGRADABLE



100%
UNIFORM
MATERIAL

- // 4 mm pins for better grip



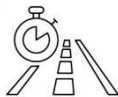
- // Locking joints on each side; Less than 1 minute installation/replacement; Made of stainless steel and polymer; corrosion resistant



KDM-ISOTRACK INSTALLATION FEATURES



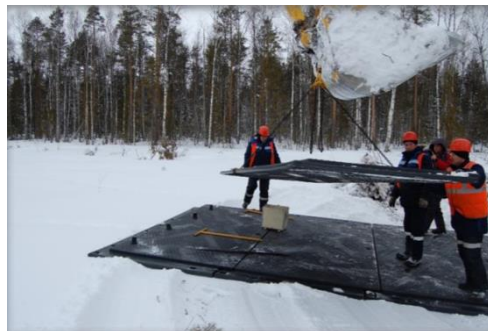
// 3 minutes or less to install/dismantle one panel



// Installation of 1 km:
4 m wide: 36 hours or less
6 m wide: 48 hours or less



// 3 crew members recommended for bundled redeployments



DOUBLE
SIDED



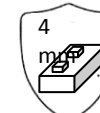
LIGHTWEIGHT



EASILY PORTABLE



MODULAR



GRIP PINS



HIGHLY DURABLE



KDM-ISOTRACK IN USE



// Minimum to none pre-arranged foundation



// Installation over uneven surfaces and logging residues



// 60% or more of surface contact with soil



// Instant commissioning



POSITIVE BUOYANCY



IMPACT RESISTANT



WEAR RESISTANT



FROST PROOF



EASY MAINTENANCE



DOUBLE SIDED



KDM-ISOTRACK IN USE

// LOAD LIMITS



▶ Caterpillar machinery



▶ Wheel machinery



▶ Per axle



▶ Per foot



HIGHLY DURABLE



IMPACT RESISTANT



WEAR RESISTANT



GROUSER TOLERANT



PROTRUDING
PINS



FROST PROOF



**KDM-ISOTRACK
IN TRANSPORT**



▶ 50 pc
400 sq.m



▶ 60 pc
480 sq.m



MI-8

▶ 9 pc
72 sq.m



MI-26

▶ 50 pc
400 sq.m

// *LOADING AND TRANSPORTATION IN STACKED ORDER*



// *LOADING AND TRANSPORTATION ON ONE SIDE*



LIGHTWEIGHT



HIGHLY DURABLE



FROST PROOF



HEAT STRESS
RESISTANT



IMPACT RESISTANT

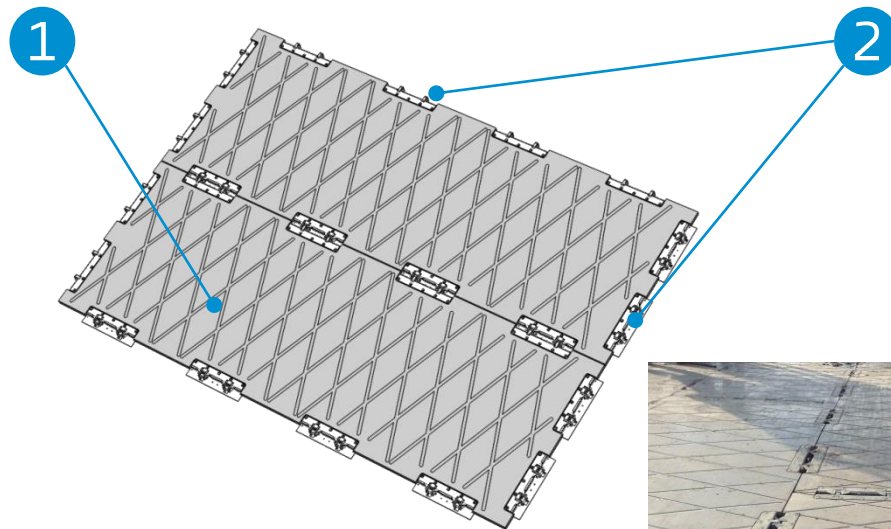


EASY IN TRANSPORTATION



COMPOSITE ROAD MATS

- // Reusable composite polymer road mats are panels (1) with locking joints (2) for quick construction of temporary roads and sites on harsh terrains.





OPERATION AND TECHNICAL CHARACTERISTICS

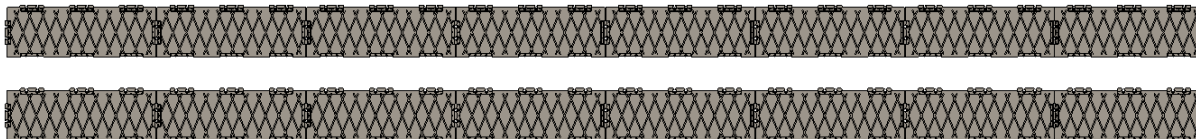
Item No.	PARAMETER	VALUE
1.	Maximum load per vehicle:	
1.1	- wheel	80
1.2	- axle	20
1.3	- caterpillar	150
2.	Average installation.dismantling time in minutes:	
2.1	- sand and dusty soil	3/2
2.2	- Cat 1 marsh	5/3
2.3	- Cat 2 marsh	7/5
3.	Maximum height of natural protrusions for installation/dismantling in mm	500
4.	Minimum machinery parameters for installation/dismantling of 1 road unit, t	0.5
5.	Dismantling and relocation in bundles	up to 5 pc
6.	Environmental friendliness, recyclable	Yes
7.	Reusable, cycles	50 or more
8.	Machinery manoeuvring limits	None
9.	Full recovery, h	0.2
10.	Designed service life, years	15
11.	Operation temperature range, °C	-60/+70



INSTALLATION METHODS

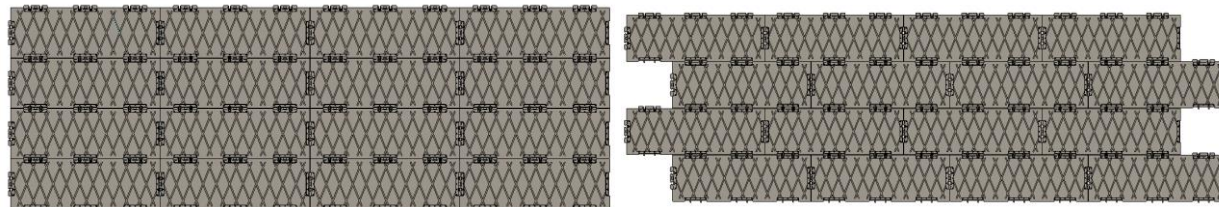
1

TRACK PASSAGE: installed on unstable soil
(sequential long-side method)



2

FULL COVERAGE ON UNSTABLE SOIL AND WETLANDS (parallel and sheared paralleled method)





KDM-EKS ROAD MAT APPLICATIONS



// Temporary roads



// Narrow trench/pit crossings



// Helidecks



// Machinery and vehicle
parking sites



// Temporary construction camps





KDM-EKS ROAD MAT APPLICATIONS



- // Access ways and machinery delivered to construction sites on sensitive soils including Cat 1 and 2 marshes
- // Main pipeline construction roads and sites
- // Temporary sites and roads for soil protection
- // Goods storage and machinery parking sites
- // Vehicle parking sites in difficult-to-access areas
- // Portable helidecks
- // Temporary storage/construction sites, event flooring
- // Temporary engineering crossings



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KDM-EKS APPLICATIONS

// Using mats for construction of roads and temporary sites resolves many issues in short time



TEMPORARY ROADS



HELIDECKS



FIELD ENGINEERING



STORAGE OF GOODS



HEAVY-DUTY
MACHINERY
PARKING SITES



TEMPORARY
CONSTRUCTION CAMPS



HEAVY MACHINERY AND
VEHICLE PARKING
SITES



TEMPORARY ROADS FOR
HEAVY MACHINERY



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KDM-EKS COMPOSITE ROAD MAT INSTALLATION AND DISMANTLING

// Specific features and locking joints enable easy installation and dismantling of KDM-EKS mats with no special machinery involved to save time and expedite delivery time.



KDM layout option for arrangement of construction sites, caterpillar and wheel machinery track passages, construction camps

1 km of road in 24 hours



KDM layout option for up to 100 t wheel and caterpillar machinery for engineering of drilling rigs





KDM-EKS BENEFITS



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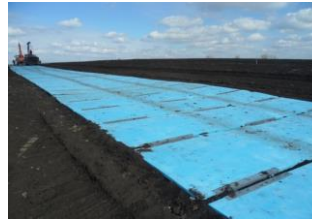
- // Easy and quick installation and dismantling;
- // Applicable in any climate, highly fire proof and frost proof;
- // Safe and quick access;
- // Many cycles of use;
- // Highly cost efficient in arrangement of temporary roads and sites;
- // Environmental friendly manufacture and use;
- // Environmentally safe, recyclable





KDM-EKS APPLICATION CASES

- // Construction of a temporary road for HDD
(Beysuzhek river, Krasnodar region)



- // Main pipeline towing site (Sula river crossing, Krasnodar region)





Machinery passages, sites (Krasnodar region)

KDM-EKS APPLICATION CASES

// RESOLVED ISSUES:

1. Machinery and goods delivered over agricultural topsoil land.
2. Construction of underwater crossings.





KDM-EKS APPLICATION CASES

// RESOLVED ISSUES:

1. Construction machinery convoy, equipment and goods delivered to site.
2. Turnaround maintenance of a main pipeline section.

Construction of a machinery passage and a site on 0.5-0.9 m deep unstable soil (Yaroslavl region)





KDM-EKS EFFICIENCY

- // Resolves all major tasks associated with engineering and maintenance of oil and gas transmission systems
- // Compliant with environmental regulations, keeps environment around the site safe
- // Reusable polymer KDM-EKS physical and mechanic properties along with operation and technical characteristics leave conventional road mats far behind
- // Application of KDM-EKS for road construction reduced budget 11 times as compared to laying of timber



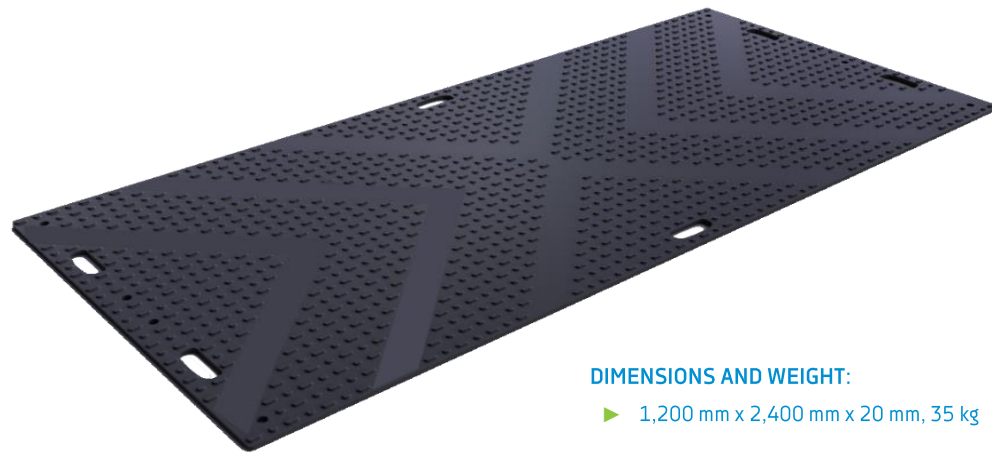
- // Little to none required machinery and materials for construction of temporary roads and sites
- // Reusability of KDM-EKS reduces maintenance costs 3 times as compared to laying of timber
- // KDM-EKS operation characteristics greatly outperform conventional mats (reinforced concrete, timber, sheets)
- // Sustainable efficiency growth with each new cycle of use



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KDM-ISOLIGHT COMPOSITE ROAD MAT

- // KDM-Isolight are lightweight multi-purpose HMWPE portable mats extruded or pressed produced
- // Panels are 1,200 mm x 2,400 mm x 20 mm, 35 kg, with installation holes for connection with other panels, a site or a road



DIMENSIONS AND WEIGHT:

- ▶ 1,200 mm x 2,400 mm x 20 mm, 35 kg



KDM-ISOLIGHT APPLICATIONS

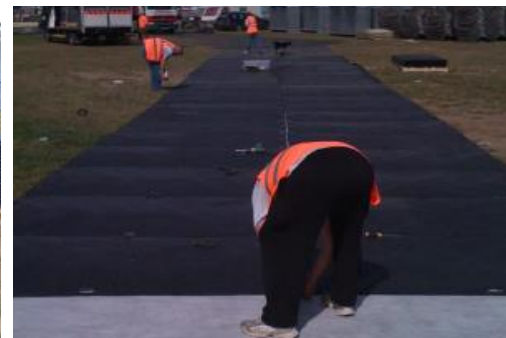
- // KDM-Isolight panels are used for up to 40 t wheel and caterpillar machinery on stable soil, construction of outside and inside areas of any purpose: stadiums, small installation sites for any municipal utility service, local utility monitoring sites with preservation of topsoil (turf, fertile soil, asphalt, etc.)





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MANUAL KDM-ISOLIGHT INSTALLATION/DISMANTLING

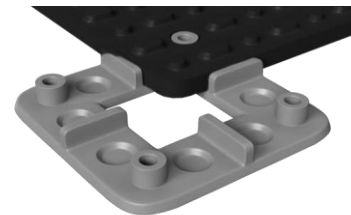
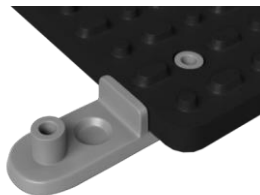




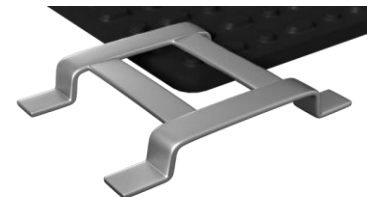
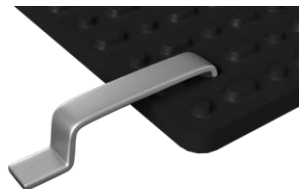
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KDM-ISOLIGHT LOCKING JOINTS

FOOT

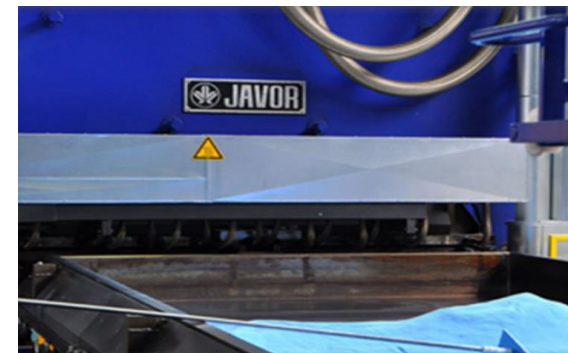


BRACKET



EQUIPMENT USED IN MANUFACTURE

- // Two high-end heavy duty pressing machines producing KDM-Isotrack cell panels from 500 Grade High Molecular HDPE with production capacity up to 10,000 panels per year
- // Fabrication of thermoplastic sheet materials: PP, PE, HDPE and UHMWPE





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PRODUCTION CAPACITY

- // 5 off 1,000 kg/hr extruding machines each producing up to 12,000 KDM-EKS panels per year.






TU 2291-010-66168267-2011
Specifications
Authorised by
GAZPROM

СОГЛАСОВАНО	УТВЕРЖДАЮ
Член правления, начальник Департамента по транспортировке, подземному хранению и использованию газа ОАО «Газпром»	Генеральный директор ООО «Полимертех»
 О.Е. Асютин	 В.Г. Рустамов
« 10 » 20 13 г.	_____ 20 __ г.
КОМПОЗИЦИОННЫЕ ДОРОЖНЫЕ МАТЫ КДМ	
Технические условия ТУ 2291-010-66168267-2011	
Дата введения в действие: _____	
РАЗРАБОТАНО	
Заместитель генерального директора - Технический директор ООО «Полимертех»	
 Д.Я. Бурак	
« _____ » 20 __ г.	
Заключение ООО «Газпром ВНИИГАЗ» от « 21 » 10 20 13 г. № 21233403-103-2013 (при проведении экспертизы ТУ)	
2011	

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СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ	
СЕРТИФИКАТ СООТВЕТСТВИЯ	
№ РОСС RU.НА36.H00108	
Срок действия с 18.10.2018 по 17.10.2021	
№ 0343684	
ОРГАН ПО СЕРТИФИКАЦИИ RA.RU.101NA36	
<p>Орган по сертификации продукции ООО "ТНК" Адрес: 236038, РОССИЯ, Калининградская область, г. Калининград, ул. Ю. Гагарина, д. 16, стр. Г, оф. 3, 4, 5. Телефон 8-917-623-5741, адрес электронной почты: tnk-oo@yandex.ru</p>	
<p>ПРОДУКЦИЯ Композиционные дорожные маты, модели: ТУНДРАМАТ БУРОВИК-1; ТУНДРАМАТ БУРОВИК-2; ТУНДРАМАТ ДОРОГА; КДМ МОБИКОМ-1; КДМ МОБИКОМ-2; СРМП; КДМ-ИЗОТРАК; КДМ-ЭКС; КДМ-ИЗОЛАЙТ; СДРТ-М. Серый/белый матрас.</p>	<p>код ОК 22.21.42</p>
<p>СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ НОРМАТИВНЫХ ДОКУМЕНТОВ ТУ 2291-010-66168267-2011 «Композиционные дорожные маты КДМ»</p>	<p>код ТН ВЭД 3921 90 900 0</p>
<p>ИЗГОТОВИТЕЛЬ Общество с ограниченной ответственностью «Полимертех». ОГРН: 110504005267, ИНН: 5040100770. Адрес: 140170, РОССИЯ, Московская область, город Бронницы, улица Советская, дом 155, строение 8, телефон/факс: 74956604715, адрес электронной почты: ooo-polimerteh@yandex.ru</p>	
<p>СЕРТИФИКАТ ВЫДАН Общество с ограниченной ответственностью «Полимертех». ОГРН: 110504005267, ИНН: 5040100770. Адрес: 140170, РОССИЯ, Московская область, город Бронницы, улица Советская, дом 155, строение 8, телефон/факс: 74956604715, адрес электронной почты: ooo-polimerteh@yandex.ru</p>	
<p>НА ОСНОВАНИИ Протокол испытаний № 001/5-18/10/18 от 18.10.2018 года, выданный Испытательной лабораторией «Тест-Эксперт» (Аттестат аккредитации № РОСС RU.31578.040.0103 от 09.01.2017 года по 09.01.2020).</p>	
ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ	
<p> Руководитель органа Эксперт</p>	<p>С.Е. Филаров И.Р. Демин</p>
Сертификат не применяется при обязательной сертификации	



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THANK YOU FOR YOUR ATTENTION!

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