



HRIZOPRO

1984 РОССИЯ АСНИИ

STABILIZING ADDITIVE FOR SMA



HRIZOPRO
1984 РОССИЯ АШЫЯ

Highlights

1. ECONOMIC BENEFIT
2. ADVANTAGES
3. OUR PARTNERS
4. REGISTERS
5. SAFETY

3 kg/t SMA
consumption

₹40K/t
price

1. ECONOMIC BENEFIT

CONSUMPTION + PRICE =

50% ECONOMY

100 Ktons of SMA

» ANALOGS - APPLICATION

PRICE	CONSUMPTION	ECONOMY
₹41K	3.5 kg	₹2.35M
₹46K	4.5 kg	₹8.70M
₹75K	3.0 kg	₹10.5M

ECONOMIC BENEFIT

3 kg/t SMA

consumption

₱12M

costs for 300 t

₱40K/t

price

100 Ktons

amount of SMA

» **₱8.7M**

» **42% of the budget**

» If the additive used today costs **₱46K/t** and the consumption is **4.5 kg/t SMA**









» ANALOGS - APPLICATION

price consumption	economy	40	41	42	43	44	45	46	47	48	49	50	60	70	75
		₱ thousand/t													
3 kg/t SMA	₱ million	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3,0	6,0	9,0	10,5
	%	0	2	5	7	9	11	13	15	17	18	20	33	43	47
3.5 kg/t SMA	₱ million	2,0	2,4	2,7	3,1	3,4	3,8	4,1	4,5	4,8	5,2	5,5	9,0	12,5	14,3
	%	14	16	18	20	22	24	25	27	29	30	31	43	51	54
4.5 kg/t SMA	₱ million	6,0	6,5	6,9	7,4	7,8	8,3	8,7	9,2	9,6	10,1	10,5	15,0	19,5	21,8
	%	33	35	37	38	39	41	42	43	44	46	47	56	62	64

2. ADVANTAGES

CELLULOSE
FIBRE



- 
 » 50% more profitable than the top seller
- 
 » 800°C thermal stability
- 
 » fluffing
- 
 » micro-reinforcement
 strength characteristics of SMA are improved by 2 times
- 
 » counteraction to de-icing reagents
- 
 » water resistance
- 
 » exposure to fungus and rodents
- 
 » exposure to sunlight





HRIZOPRO

1984 РОССИА АСНЫН

40+YEARS

ON THE MARKET



FEDERAL ROAD AGENCY
ROSAVTODOR



AVTODOR
STATE COMPANY

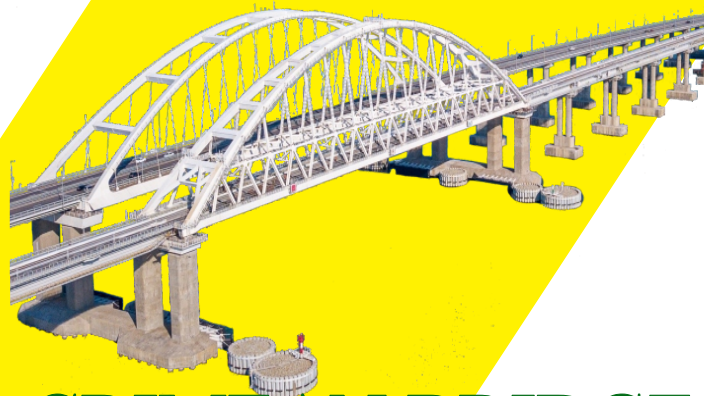
MRHW



CENTRAL RING ROAD



Formula 1
SOCHI



**CRIMEAN BRIDGE
OFFICIAL SUPPLIER**

4. REGISTERS

Federal State information system of price formation in construction



<https://fgiscs.minstroyrf.ru/#/monitoring/info/420069>

Federal Unit Charges



<http://www.minstroyrf.ru/trades/view.state-fer.php>

Territory Unit Charges



<http://www.minstroyrf.ru/trades/view.territorial.php>



MTCK

Moscow
Territorial Construction
Catalogue

<http://www.mtsk.mos.ru/default.aspx?WCI=VIEWPRODUCTION&WCE=GOTO.OBJECTCATALOGUE.99244>

RUSSIAN
EXPORT
CATALOGUE



http://ruexport.org/rus_export_catalog



Register of innovative products, technologies and services

<https://innoprod.startbase.ru/about/>



MTCK

Register of innovative technology and technical solutions (IT and TS)

<http://mtsk.mos.ru/default.aspx?WCI=VIEWCATALOGUE&WCE=GOTO..10>

CERTIFIED BY SYSTEM SUPERPAVE FOR

CANADA AND USA ROADS

SHRP 2
STRATEGIC HIGHWAY RESEARCH PROGRAM
Accelerating solutions for highway safety, renewal, reliability, and capacity

STRATEGIC HIGHWAY



RESEARCH PROGRAM



5. SAFETY



MINISTRY OF HEALTH OF
THE RUSSIAN FEDERATION



FSBCI «Research Institute of Occupational
Health of academician N.F. Izmerov»

**European Union 2003/18/EU and standard International
Standard Organization № 14966 (ISO Standard 14966)
and standard VDI 3492 (Germany)**

» actual data showed an air content of 0,0001 fibers in
milliliter

» in 100 times less than the criterion «clear air»

» in 50 times less than the criterion «absolutely safe»

HALF-LIFE PERIOD

» chrysotile fiber– 15 days

» cellulose fiber – 11 years

» in accordance with directive requirements



World Health
Organization