

**TECHNICAL SPECIFICATION NO. 1/2014**Issue G / September 6<sup>th</sup> 2017**1. PRODUCT: EPDM GRANULATED RUBBER (virgin color)**

**PURPOSE:** EPDM granulated rubber is used in construction of polyurethane-rubber external and internal sports and recreational surfaces e.g. football pitches and playgrounds, as well as a filling material for the so-called artificial grass in places where surface color needs to be preserved.

**MATERIAL:** Primary production vulcanized rubber mixture based on EPDM rubbers

**COLOR:** according to current price offer / other colors are custom-made

**SHAPE:** a mixture of various shapes: hexagonal, cubical

**FRACTION:** 1.0-4.0 mm 1.0-3.5 mm 1.0-3.0 mm 0.5-2.5 mm (infill) 0.5-1.5 mm 0-0.5 mm (other are custom-made)

**OTHER PHYSICAL & CHEMICAL PARAMETERS:**

PARAMETERS	VALUE	UNIT	STANDARD
Tensile strength	≥ 6,0	MPa	PN-ISO 37
Hardness	70±5	°ShA	ISO 7619-1
Density	1,51±0,05	g/cm <sup>3</sup>	PN-ISO 2781
EPDM rubber contents	>25	%	Thermogravimetric analysis
Ash contents	max. 50	%	PN 81 /C-04240
Combustibility	Class I: not flammable		DIN 51 960
Combustibility	Class: C <sub>n</sub> -s1		PN-EN13501-1+A1:2010
Odour test	3		VDA 270
Gravimetric fogging	< 2	mg	DIN 75201
<b>Bulk density</b>			
Fraction 1-4 mm 1-3,5 mm 1-3 mm 0,5-2,5 mm (infill) 0,5-1,5 mm	620±20	g/dm <sup>3</sup>	PN-ISO 60
Fraction 0,5-1,5 mm sieved	520±20	g/dm <sup>3</sup>	PN-ISO 60
Fraction 0-1 mm	< 500	g/dm <sup>3</sup>	PN-ISO 60
<b>Sieve analysis</b>			
Fraction 1-3,5 mm			
Granules above 3,5 mm	≤ 5,0	%	PN-71 /C-04501
Granules below 0,5 mm	≤ 0,5	%	PN-71 /C-04501
Fraction 1-3,0 mm			
Granules above 3,0 mm	≤5,0	%	PN-71 /C-04501
Granules below 0,5 mm	≤0,5	%	PN-71 /C-04501
Fraction 0,5-2,5 mm			
Granules above 2,5 mm	≤1,0	%	PN-71 /C-04501
Granules below 0,5 mm	≤1,0	%	PN-71 /C-04501
Fraction 0,5-1,5 mm			
Granules above 1,5 mm	≤5,0	%	PN-71 /C-04501
Granules below 0,5 mm	≤5,0	%	PN-71 /C-04501
<b>DISCOLORATION (exposition according to the BS-EN 14836-2005 standard)</b>			
EPDM granulated rubber color	<b>4*</b>	GREYSCALE	BS EN 20105-A02 1995

\* Tests carried out in a professional research lab – SPORTS LABS. Allowed limit value for surfaces used in playgrounds and sports pitches >3.

EPDM granulated rubber (virgin color) ensures very good resistance to weather conditions, UV radiation and the effects of the oxygen and ozone contained in the air. The product does not cause permanent density, which may decrease pitch quality.

**2. STANDARDS and RESARCH:**

The entire production process is subject to the ISO 9001:2009 system.

The product meets the requirements of PN-EN 14877 "Synthetic surfaces for outdoor sports areas. Specification".

The product meets the requirements of DIN 18035-7; 2002 (heavy metals, DOC, EOX)

Climate simulation according to ISO 4892-3

Discoloration tests according to EN ISO 20105-02.

Hygienic certificate HK/B/0170/01/2016

Certificate ISA SPORT for red and green granules

Classification for reaction to fire PN-EN 13501-1+A1:2010

**3. OTHER:****PACKAGING:**

- 25 kg PE valve bags made, placed on 100x120 cm pallets, foiled, banded with polypropylene tape,

- ca. 1000 kg Big-Bags, tightly sealed, placed on 120x120 cm pallets,

- packaging may also be customized as per Customer's requests.

**IDENTIFICATION:**

Product name, Fraction, Batch no./Production date, Producer + info label.

**STORAGE:**

Originally tightly sealed packages, secured against moisture and dirt penetration, ventilated storage place.

Storage temperature: max. 40°C.

**OH&S AND FIRE SAFETY CONDITIONS:**

The conditions of storing and using granulated products must meet all the requirements concerning storage and usage of rubber materials.

**COLOUR:**

Minor differences in colour may occur between rubber granules from different manufacturing batches.