



BIOTUM® PGB 50/70

Paving Grade Bitumen according to EN 12591:2009

Description

BIOTUM® PGB is paving grade bitumen for hot asphalt-concrete mixtures. BIOTUM® PGB is applied for construction and reconstruction of roads, highways and other asphalt-concrete pavements.

Characteristics

RPE BIOTUM guarantees conformity of BIOTUM® PGB 50/70 with the following requirements of the norm:

SPECIFICATION

Complies with EN 12591:2009 "Bitumen and bituminous binders"

PROPERTIES, UNIT	TEST METHOD	BIOTUM® PGB 50/70
Penetration at 25 °C, 0.1 mm	EN 1426	50-70
Softening point, °C	EN 1427	46-54
Fraas breaking point, max, °C	EN 12593	-8
Retained penetration *, min, %	EN 12607-1	50
Increase in softening point *, max, °C		9
Change in mass *, min, %		0.5
Flash point, min, °C	EN ISO 2592	230
Solubility min, %	EN 12592	99.0
Kinematic viscosity at 135 °C, min, mm ² /s	EN 12595	295
Dynamic viscosity at 60 °C, min, Pa·s	EN 12595	145

** RTFOT at 163 °C in accordance with EN12607-1

Application

BIOTUM® PGB 50/70 is used in AC and SMA mixes as a wearing course for roads with low or average density of traffic.

Application instructions

To obtain high performance properties strict temperature control during mixing and paving is required.



PROCESS TEMPERATURES

TECHNOLOGICAL PROCESS	TEMPERATURE
Max. heating temperature	185 °C
Temperature while bitumen pumping	>130 °C
Adding bitumen to asphalt mix	155-165 °C
Temperature of asphalt mix in the hopper	>145 °C
Asphalt mix compaction temperature	>110 °C

Storage and transportation

Drummed PGB

BIOTUM® PGB is packed in patented drums made of galvanized steel with a capacity of 240, 260 or 330 kg. Drum seams are marked with WWW.BIOTUM.RU. There are 4 drums on a palette 1,14 x 1,14 m. Drummed PGB can be transported by trucks, railway and sea containers.

DRUMMED BIOTUM® PGB TRANSPORTATION

TYPE OF TRANSPORT	BIOTUM® PGB Net weight, kg	BIOTUM® PGB Gross weight, kg
Truck	19200	20380
ISO-container TEU (20 feet)	20800	21980
ISO-container FEU (40 feet)	25080	26201
Covered train car	64160	67464

Drummed BIOTUM® PGB does not require any specific conditions while transportation. It can be stored up to 3 levels high in open storage grounds. We highly recommend drum melting system BIOTUM® DMS (capacity of 10 - 200 tons per hour) with automatic unpacking, loading and unloading systems. Learn more about BIOTUM® DMS on biotum.ltd in the Partnership section.

Storage period of drummed bitumen is more than 12 months as from the date of production. On long storage it is necessary to test the properties of the product.

Hot PGB

Hot PGB is transported in clean heated bitumen trucks. Hot PGB must be stored in leak-proof tanks with thermal oil heating system and repetitive agitation or circulation pumps (min 2 hours a day). Before application it is recommended to agitate BIOTUM® PGB during 2 hours under high temperature.

Follow the recommendations on storage to avoid ageing and thermal destruction of the material.

In case bituminous binders are stored under high temperatures more than 10 days, one of the properties has to be observed to control ageing degree: penetration at 25 °C, softening point or elastic recovery at 25 °C.

STORAGE OF BIOTUM® PGB

Storage period	Temperature
10 days	110 °C
7 days	140 °C
3 days	160 °C
24 hours	180 °C

Safety requirements

General safety principles must meet the ADR requirements. Please note that bitumen is flammable under high temperatures and recommended process temperatures should be followed. The more detailed information is available in BIOTUM® PGB Material Safety Data Sheet.



The information about the product conforms with our current information; The specified data is the average value under standard conditions. The end consumer must test the material applicability for intended purposes. Feel free to contact our engineering team to get more technical information. We guarantee high quality of our materials within the framework of our sales and shipping conditions.

RPE BIOTUM LLC, 144 Noyabrskaya Street, Vladimir 600901, Russian Federation