



## CONSTRUCTION OF ROAD SURFACES AND BASES USING COLD REGENERATION OF ASPHALT CONCRETE IN INSTALLATION

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### ABSTRACT

in the article Highways are the most important part of the country's overall transport system, without which no sector of the economy can function. The level of development and technical condition of the road network significantly affect both the economic and social development of the country as a whole and its individual regions.

### KEYWORDS

maintenance, service life, harmful emissions, operation, road, road conditions.

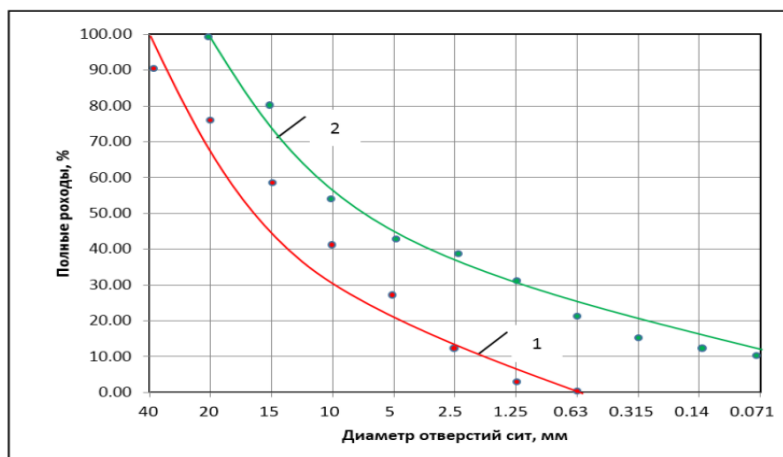
### Introduction

Using the results of theoretical studies, experimental work was aimed at selecting AGB compositions with the highest density and strength characteristics with the optimal amount of cement and plasticizing additive.

As starting materials, granules of old asphalt concrete (type C) obtained as a result of milling asphalt concrete pavements with a cold cutter during repair work at the facilities of Termez were used . The general view of the granulate and the particle size distribution curves are shown in Figure 1.



A)



B)

Figure 1 - General view of the granulate after sieving (a) and its particle size distribution (b):  
1-before crushing; 2-after crushing and adding cement.

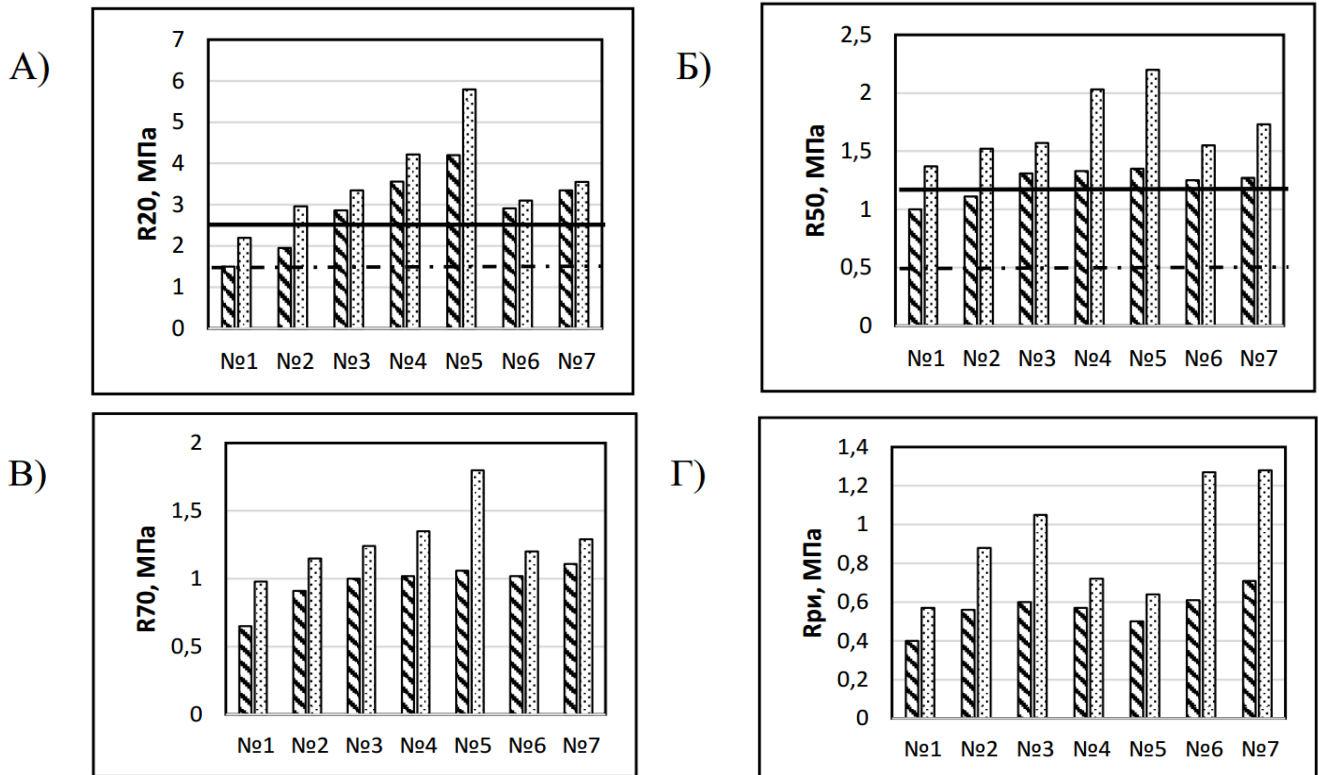
The paper considered various options for the composition of AGB-mixtures based on granulated old asphalt concrete without the addition and with the addition of cement in the range from 0.75 to 3%. and plasticizer in the amount of 1.2% by weight of cement. For the preparation of AGB mixtures, two types of granules were used . Granulate 0-40 mm in size obtained after milling without crushing and fractionation and granulate 0-20 mm in size obtained after crushing, sieving and mixing fractions, which provided a denser AG B- mixture (Fig. 1b). The compositions of the mixtures are shown in table 1.

Table 1

Compositions of AGB mixtures with 0-40 mm granulate and 0-20 mm granulate

materials	Composit ion No. 1	Composit ion No. 2	Composit ion No. 3	Composit ion No. 4	Composit ion No. 5	Composit ion No. 6	Composit ion No. 7
A) Old asphalt concrete granulate (fraction 0-40 mm)	100%	97.75%	95.5%	93.25%	91.0%	97.73%	95.46%
B) Old granulate asphalt concrete (fraction 0-20 mm)							
Cement m500	-	1.5%	3%	4.5%	6%	1.5%	3.0%
Water	-	0.75%	1.5%	2.25%	3.0%	0.75%	1.5%
Plasticizer ( reinforced )	-	-	-	-	-	0.018%	0.036
<b>Total:</b>	100%	100%	100%	100%	100%	100%	100%

The results of determining the main indicators of the properties of AGcrete from non-crushed and crushed granules at the age of 7 days are shown in Figure 2. and at an age of 28 days are shown in Figure 3.



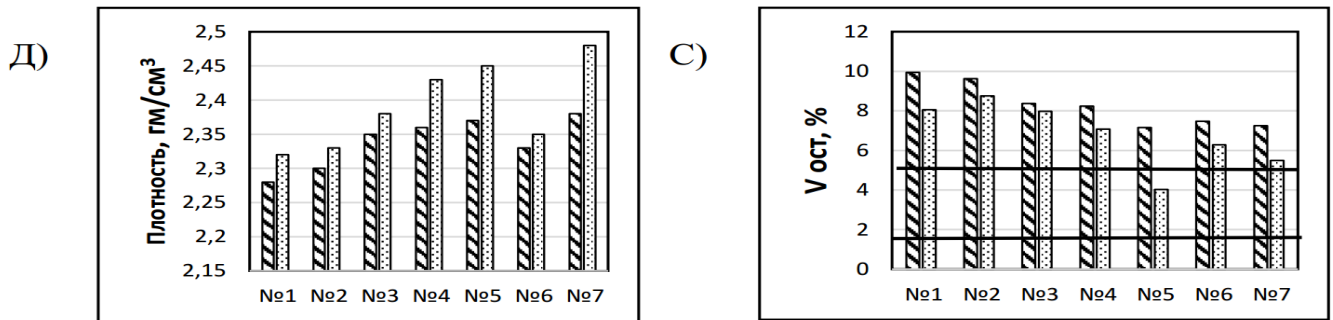


Figure 2 - Indicators of properties of AGB after 7 days:

a, b, c - compressive strength; g - bending strength; d - density; c - residual porosity;

----- GOST 9128-2013; ----- STO NOSTROY 2.25.35-2011.

before crushing; After crushing.

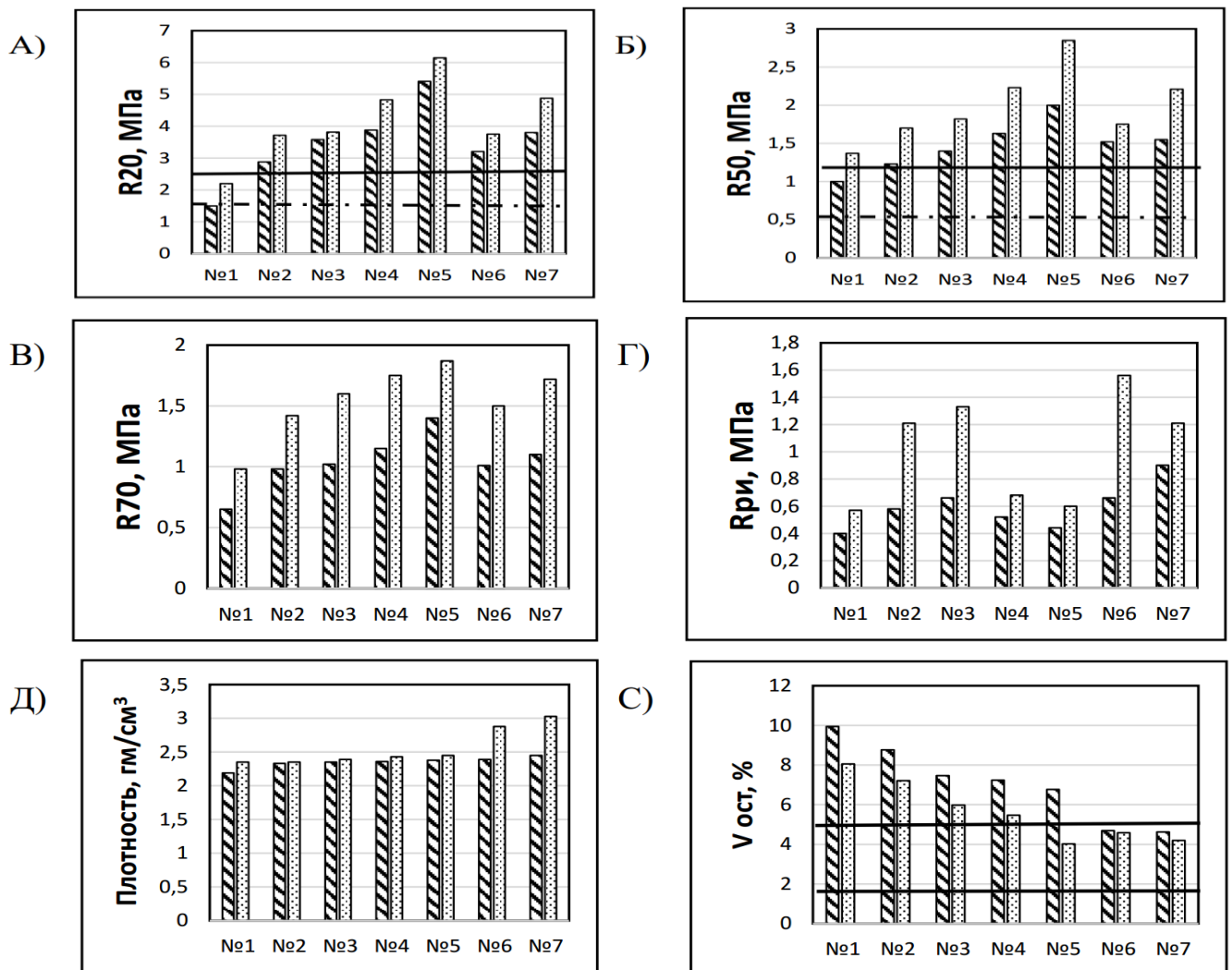


Figure 3 - Indicators of properties of AGB after 28 days:

a, b, c - compressive strength; g - bending strength; d - density;

c - residual porosity;

----- GOST 9128-2013; ----- STO NOSTROY 2.25.35-2011.

▨ До дробления; ▩ После дробления.

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