

Polymer-modifier for the road bitumen manufacture of the fourth generation

By T.I. Lebedzeva, Y.A. Bulauka

Book Topical Issues of Rational Use of Natural Resources 2019

Edition 1st Edition

First Published 2019

Imprint CRC Press

Pages 7

eBook ISBN 9781003014638

ABSTRACT

This study proposes a method for obtaining fourth-generation road binders, that is, Polymer-modified bitumen. The method is different from the existing ones due to the usage of petrochemical production wastes. Modifying bitumen with petrochemical waste will expand the range of polymer modified bitumens, reduce the involvement of imported additives (such as styrene-butadiene-styrene type polymer), reduce the environmental load and provide a positive economic effect by using cheaper and more available components compared to industrially used analogs. In addition, obtained polymer modified bitumens, in terms of their basic performance indicators, comply the requirements of modern standards for modified road bitumens, ensuring their reliable operation in the composition of asphalt mixes.