E-ISSN : 2181-4341
https://wordlyknowledge.uz
IMPACT FACTOR(SJIF) : 3,934

INCREASING THE SERVICE LIFE OF ASPHALT CONCRETE COATINGS WITH SURFACE PROCESSING

M.F.Kholmirzaev
Namangan Engineering and Construction Institute
Email: kholmirzaev_96@mail.ru
Tel: +998941702717

Annotation: This article highlights the issues of increasing the service life of asphalt concrete roads, preventing damage to the surface of asphalt concrete roads using bitumen and bitumen emulsions and other types of resins, petroleum products, and extending the service life of highways.

Key words: Aggregate, fraction, rough, sandwich type, surface treatment, asphalt concrete, binder, smoothness, roller, roads.

Introduction

Longitudinal and transverse cracks formed on the road surface due to the weight forces falling from vehicles on highways in our republic, due to seasonal rainfall, the failure of water drainage networks on the road surface and other factors, Small-scale defects on the surface of the coating and unevenness on the surface of asphalt concrete require the following technological processes to increase the service life of asphalt concrete.

Main Part

1.The technological process of surface treatment in foreign countries, in particular, surface treatment in France, is divided into several forms. Each of them is effective in its own way. Single-layer surface treatment with one application of aggregate and binder. It creates a sufficiently wearable layer and rough surface on the pavement and ensures its durability. This is the most common type of surface treatment and provides some convenience for all types of activities. 5-10 fractional flints are often used in it.

2. Single-layer surface treatment with distribution of two layers of limestone. For this, pebbles of a large fraction are first distributed on the surface of the coating (for example, with a fraction of 5-10 mm or 10-20 mm), compacted with rollers, then pebbles of a smaller fraction are distributed (for example, with a fraction of 2.5-5 mm or 5-10) and is suspected. They are used on high-speed roads. Such surface treatment helps to improve the hermeticity of the coating, to eliminate small defects and deformations, and to better distribute the stress from the car wheel. It is especially effective to use such treatments on hard bases.

3. Double-layer surface treatment (in some countries it is called double-layer "sandwich"). On top of the binder poured into the first layer, the stone of large fraction does not distribute and is compacted. Then the binder of the second layer is laid, the crushed stone with a small fraction is distributed and compacted. It is used in cases where cracks, traces and pits are formed due to the speed of movement in the coatings with insufficient strength, that is, it is used not only to create a protective and erosive bumpy layer, but also to improve their smoothness, to slightly increase their hardness and resistance to sliding.

4. "Sandwich" surface treatment. First, pebbles of coarser fraction without coating are distributed, then binders are evenly sprinkled over the surface, and pebbles of small fraction are distributed and compacted. The structure created by the surface treated layer can be compared to a single layer surface treatment built by spraying the binder and distributing two layers of limestone. Such surface treatment is recommended for use on secondary roads of local importance for leveling and some strengthening when the smoothness of the pavement varies.

Asphalt concrete surface treatment processes

Conclusion

Surface treatment is mainly developed for economic reasons as an energy-saving technology. However, some road enterprises prefer to use asphalt concrete coating in such cases. But in the development of roads, there comes a time when surface treatment shows itself as a timely and economical solution.

REFERENCES:

1.Murodjon M., Mirzokhid K., Muhammadyusuf E. GAT dasturiy ta ‘minotidan foydalanib avtomobil yo‘llari ma‘lumotlar bazasini yaratish» uzacademia scientific-methodical journal republican number 3 on the subject «Increasing the innovative activity of youth, improving the spirituality and achievements in science» collection of materials august 31, 2020 part 12 pages 536-538 //ISSN (E)–2181–1334.–2020.

2.Мамажонов М., Холмирзаев М., Мамаджонов М. Геодезические работы при проектировании дорог //Общество и инновации. – 2021. – Т. 2. – №. 9/S. – С. 224-228.

3.Mamajonov Murodjon, Kholmirzayev Mirzohid, Inayatov Qahramon “DESIGN A SMART PEDESTRIAN CROSSING” ЭЛЕКТРОННОЕНАУЧНО-ПРАКТИЧЕСКОЕ ПЕРИОДИЧЕСКОЕИ ЗДАНИЕ «Экономикаисоциум» №6(85) (июня, 2021). http://www.iupr.ruУДК 004.02:004.5:004.9 ISSN 2225-1545

4.M.M. Ergashev, M.A. Mamajonov, M.F. Xolmirzayev. “AUTOMATION AND MODULATION OF HIGHWAYS IN GIS SOFTWARE” «Theory and practice of modern science» №5 (59) 2020 UDK: 528. 48. (575.192)

5. Mamajonov M., Kholmirzaev M. GEODESIC WORK IN THE PROCESS OF DESIGN TO ENSURE TRAFFIC SAFETY ON ROADS //Экономика и социум. – 2021. – №. 3-1 (82). – С. 157-160.

6.Мамажонов М. и др. ПОВЫШЕНИЕ СЕЙСМИЧЕСКОЙ УСТОЙЧИВОСТИ ЗДАНИЙ И СООРУЖЕНИЙ //Международный научно-практический электронный журнал «МОЯ ПРОФЕССИОНАЛЬНАЯ КАРЬЕРА». Выпуск № 31 (том 1)(декабрь, 2021). Дата выхода в свет: 31.12. 2021. – 2021. – С. 14.

7.Mamajonov M. et al. INFORMATION TECHNOLOGIES IN THE DESIGN OF HIGHWAYS //Экономика и социум. – 2022. – №. 1-1 (92). – С. 119-124.

8.Mamajonov M. et al. ARCHITECTURAL SOLUTIONS TO INCREASE THE SEISMIC RESISTANCE OF BUILDINGS AND STRUCTURES //Экономика и социум. – 2022. – №. 2-2 (93). – С. 215-220.

9.Murodjon M., Mirzokhid K., Qahramon I. GAT dasturiy ta ‘minotida avtomobil yo ‘llari va bino inshootlarni 3D modellashtirish» uzacademia scientific-methodical journal republican number 3 on the subject «Increasing the innovative activity of youth, improving the spirituality and achievements in science» collection of materials august 31, 2020 part 12 pages 42-44 //ISSN (E)–2181–1334.–2020.

10.Мамажонов М. и др. ИННОВАЦИОННЫЙ СПОСОБ СТРОИТЕЛЬСТВА ДОРОГ //Международный научно-практический электронный журнал «МОЯ ПРОФЕССИОНАЛЬНАЯ КАРЬЕРА». Выпуск № 31 (том 1)(декабрь, 2021). Дата выхода в свет: 31.12. 2021. – 2021. – С. 28.

11.O‘gli, Mutalibov Ibroxim Qosimjon, et al. "Asfaltbetonning muddatini oshirishda uglerodli ohaktoshlardan foydalanish texnologiyasi." *Механика и технология* 4.9 (2022): 214-218.

12.Makhmudov, O., Mamajonov, M., Kholmirzaev, M., & Inoyatov, Q. (2021). DESIGN A SMART PEDESTRIAN CROSSING. *Экономика и социум*, (6-1 (85)), 180-183.

13.Мамажонов М., Холмирзаев М., Мамаджонов М. Геодезические работы при проектировании дорог //Общество и инновации. – 2021. – Т. 2. – №. 9/S. – С. 224-228.

14. Мамажонов М., Холмирзаев М., Мамаджонов М. Avtomobil yo’llarini loyihalashda geodezik ishlar //Общество и инновации. – 2021. – Т. 2. – №. 9/S. – С. 224-228.

15.Ergashev M., Mamajonov M., Kholmirzayev M. Automation and modulation of highways in gis software //Теория и практика современной науки. – 2020. – №. 5. – С. 9-14.

16. Mutalibov I. Analysis of problems in the laying of cement concrete squases //International journal of academic engineering research,(5). – 2020. – С. 57-58.

17.Mutalibov I. ADVANTAGES OF GRAVEL AND SAND MIXTURE OVER TRADITIONAL CEMENT CONCRETE ROAD PRODUCTS II //Экономика и социум. – 2022. – №. 11-1 (102). – С. 271-274.

18.Mutalibov I. et al. AVTOMOBIL YO'LLARIDA SEMENTBETON QOPLAMALARNI MUSTAHKAMLIGINI OSHIRISH TEXNOLOGIYASINI TAKOMILLASHTIRISH //Academic research in educational sciences. – 2021. – Т. 2. – №. 10. – С. 681-686.

19.Ergashev M. et al. АВТОМОБИЛЬ ЙЎЛЛАРИ СОҲАСИДА ДОИМИЙ ФАОЛИЯТ КЎРСАТУВЧИ БАЗАВИЙ GPS СТАНЦИЯЛАРИДАН ФОЙДАЛАНИШ //Academic research in educational sciences. – 2021. – Т. 2. – №. 11. – С. 52-61.

20.Habibullayev A. H. et al. CHEMICAL COMPOSITION AND STRUCTURE OF BITUMENS //Экономика и социум. – 2022. – №. 6-2 (97). – С. 75-78.

WORDLY
KNOWLEDGE