International Journal of ChemTech Research

CODEN (USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555

Vol.12 No.05, pp 01-07, 2019

# Effectiveness of Buton Granular Asphalt on Asphalt Emulsion Mixture Due to Aging Process

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**Abstract :** The objective of this study is to replaced of petroleum bitumen with local materials such as Buton granular asphalt (BGA) was blended with petroleum bitumen in the asphalt emulsion mixture, and to analyze the effect BGA of mixtures due aging process related to the stability, flow, and indirect tensile strength. The first method given a BGA partial substitution of the asphalt emulsion content with variations BGA content, while the second method to aging carried out in an accelerated manner in the experimental laboratory, by the sample being put into an oven at 85 °C with variations in aging time of 0, 1, 2, 3, 4, and 5 days. and checking the chemical content contained in the BGA. The results and analysis indicate that BGA at a level of 10% can be used as a substitute for part of the asphalt emulsion. Strain values increase after 1 day of aging, due to the influence of bituminous in the BGA in the mixture. Furthermore, after aging for 2, 3, 4, and 5 days, the values of strain was decreased, while the value of ITS was increased, because of the influence of mineral in the BGA in the mixture.

**Keywords:** aging; asphalt emulsion; Buton granular asphalt.

**Bulgis *et al* /International Journal of ChemTech Research, 2019,12(5): 01-07.**

**DOI= http://dx.doi.org/10.20902/IJCTR.2019.120501**

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