

5th National Conference on New Researches in Chemistry and Chemical Engineering Tehran-2017

## The effect of polymer leukobite on vacuum bottom

**Sajad Poozesh<sup>1,\*</sup> - Mohammad Khani<sup>2</sup>** <sup>1</sup>first author <sup>2</sup> second Author

Sajad Poozesh<sup>1</sup>, Mohammad Khani<sup>2,\*</sup>

<sup>1</sup>Department of chemical engineering, Research Sciences University, Kermanshah, Iran Email address: sajad\_poozesh@yahoo.com, telephone number:+989175699296 <sup>2</sup>Department of Engineering, Islamic Azad University, Khorramshahr (Iran \*corresponding author : M.khani0978@gmail.com

## ABSTRACT

The crude oil in the refinery has been converted into distillation towers by its distillation towers, and the crude oil products are separated from each other in different parts of the tower, and in the process of distillation at atmospheric pressure, some of the heavy materials remain at the bottom of the tower. Which are transferred to vacuum distillation towers and separated by distillation in vacuum of its various components, and the remainder of this tower, known as vacuum bottom, is used to produce bitumen. In this research, the behavior of viscosity parameters, shear stress, torque, shear rate and accuracy of the bottom of unit 200 of Abadan refinery with addition of 5%, 6%, 8%, 10% and 15% of leukobite polymer (a type of polyolefins and modification Bitumen) was studied using a DV2T Brookfield rotary viscometer. When used for combination polymers, it should be mixed to form a perfectly homogeneous vacuum in the batomier to provide a good performance. To prepare the compounds from the high cutter mixer Used. The results show that by increasing the amount of leukobite polymer to the watt-bat unit 200 of Abadan refinery, viscosity increased at different temperatures and caused other parameters (shear stress, torque, and shear rate, degree of penetration, softness point and accuracy). Effect Greatly

Keywords: leukobite polymer vacuum bottom viscosity mixed different temperatures

## 1. INTRODUCTION

Today, a large part of government spending in different countries of the world is spent on pavement pavement, while the pavement after a while has suffered cracking and extinction due to various factors, including loading and atmospheric factors, and eventually from As a result, a lot of expenses are incurred to repair and maintain or replace faulty asphalt coatings. As a result of loading, asphalt pavers are deformed, in which tensions are created. If the amount of horizontal tensile stresses in the pavement layer increases the tensile strength of the materials of that layer, it will crack and break the layer. Pittings are rheological materials, in the sense that their behavior depends on the temperature and loading time. The total material resistance to deformation under load and its relative distribution is the deformation

between the elastic and viscous parts of the material. The high sensitivity of the bitumen to the temperatures in the range of their application. Between the peak summers of the summer and the peak of the winter, the hardness of a bitumen can be up to 85 degrees to even eight times the phase difference of it (the distribution of the reaction relativity between the elastic and viscous bitumen sections). Also, the properties of resistance to failure In bituminous binder materials such as viscoelastic properties, they are very sensitive to temperature and loading speed. The tension and strain during a failure can change greatly by changing the temperature of 10 degrees Celsius. Distillation bitumen, due to the specific limitations in the process of producing refineries, does not perform well in temperature and loading