

Viscosity of a Polyurethane Resin

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Abstract

Viscosity of the base resin is an important property to characterize since it influences the pumping pressure and ease of mixing of the grout constituents. A polyurethane resin(AV-320) was selected for this investigation. Change in viscosity with temperature was quantified using a Brookfield Viscometer.

1. Introduction

Chemical grouts are used in stopping leaks in underground conduits and structures and stabilizing soils to reduce permeability. Penetrability of a chemical grout is a function of viscosity and gel time. The gel time is linked to the rapid increase of viscosity, which reduces the penetration of grout into the formation. More than 400 ASTM standards are available for determining the viscosity for different liquid. Viscosity of resin can be measured by Brookfield viscometer, Saybolt viscometer, Ball-Drop Method and Vacuum Capillary viscometer, Multicell Capillary viscometer, Glass Capillary viscometer. This paper presents the variation of viscosity with temperature for the AV-320 resin using the \blacklozenge Brookfield viscometer.



2. \blacklozenge Objective

In this study, the influence of temperature on the viscosity of a AV-320 resin was investigated.

3. \blacklozenge Experimental Program

The viscosity of AV-320 grout is measured by Brookfield viscometer (Figure 1)



Figure 1. Brookfield viscometer used for Testing

If you have any questions, please contact [Dr. C.Vipulanandan](#)
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