



LUKOIL-Permnefteorgsintez LLC, Perm
COMMENT

on operational properties of Isollat-Effect heat insulation coating

In July 2010, heat insulation of metal pipeline of the pressure reservoir was completed in accordance with the project of "Permgrazhdanproekt" on the object "Site No. 3 BTW (biological treatment of industrial waste water), shop No. 17 of UVK and OSV LUKOIL-Permnefteorgsintez LLC". Insulation was performed with the following characteristics: 0820, L = 450 m, $T_{\min} = 15^{\circ}\text{C}$, $G_{\text{av}} = 200\text{-}600 \text{ m}^3/\text{h}$. Pre-set time for storing the substance = 72 hours.

During the period from July 2010 till now Isollat-Effect coating performs its functions and meets the expected requirements:

- no cracks and delamination of the coating have been detected during operation;
- no freezing of the pipeline in the last winter periods has been revealed;
- no wetting of the coating as a result of condensation in the past summer periods has been revealed;
- no visible signs of environmental influences (precipitation);
- the coating color has changed to gray.