

Micronization of catalytic systems in receiving the bituminous insulating materials for protection of the main pipelines

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Abstract

Pipelines are the most effective and safe way of oil, gas and oil products transportation on considerable distances. The durability and fail-safety of operation of pipelines directly depends on efficiency of their anticorrosive protection. Insulating covers have to carry out the functions in a wide interval of temperatures of construction and operation of pipelines, providing their protection against corrosion for the greatest possible term of their operation. Researches of refractory bitumens show that participation of asphaltens molecules as a filler of the bituminous insulating materials (BIM) has catalytic effect on process of bituminous coverings drying. The obtained data testify that the carried-out accelerated tests of electrochemical process at micronized BIM cathodic reaction of ionization of metal over the anode prevails. It is necessary to conclude about need of modification of film-forming material inhibitors of the anti-oxidizing character which application will allow to avoid further oxidizing activity. As such inhibitors various polymeric systems can act.

Keywords

Bitumen, Composite protective material, Coverings, Electrochemistry, Oil and gas equipment, Physic-mechanical properties, Structure