**Abstract.** The paper presents a study on the development of thin-layer thermal (with a thermal conductivity coefficient ranging from 0.0416 to 0.083 W/(m∙K)) insulation coatings based on styrene-acrylic aqueous dispersion with improved adhesion properties and regulated technological characteristics. The simplicity and speed of applying liquid thermal insulation provide significant advantages over standard insulating materials. An advantage is the ability to insulate surfaces of complex configuration.