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(57) Abstract: The multifunctional paint is based on a highly porous inorganic substance created by a reaction of at least two components. TiO₂ nanoparticles are attached to the surface of this substance. The first component is a water insoluble calcium compound and the second component is a water soluble sulfate. The method of applying the multifunctional paint on the surface is that the first component containing the water suspension of the insoluble calcium compound is applied on the treated area first and subsequently a mixture of TiO₂ nanoparticles suspended in the water solution of the second component is applied over the first layer. Another way is to apply a water suspension of the first component containing also TiO₂ nanoparticles on the treated surface and then deposit the water solution of the second component on the layer. A mixture of all components can be also applied on the treated area at once.

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