

ALIEN PROPERTY CUSTODIAN

PRODUCTION OF PAINTING COLORS

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This invention relates to a process of improving the viscosity and luster of painting colors produced on the basis of drying oils or drying artificial resins, the term "drying" referring primarily to the absorption of oxygen from the air or from added oxygen suppliers while a firm film in the form of layers or coatings is being developed.

Layers or coatings formed of linseed oil, wood oil, artificial resin modified by such an oil, and the like are usually dull after production or subsequent drying, and the desired brilliancy can be imparted to them only by polishing or by subjecting them to similar treatment.

It is known to obtain layers and coatings showing a high polish immediately after production or drying by the use of suitable additions so that after-treatment may be dispensed with. For this purpose, it has been proposed to add to varnishes containing linseed oil, wood, oil, stand oil, poppyseed oil, hemp oil, nut oil or mixtures of these oils zinc salts of benzoic or cinnamic acid or to form them in the mass from the free acids and zinc oxide. It has further been suggested to employ for the same purpose the aldehydes of the acids mentioned together with zinc oxide. By employing, in accordance with still another proposal, crotonic acid, acrylic acid, sorbic acid and similar unsaturated aliphatic acids the same effect as well as considerable ease of flow and uniformity of distribution can be attained whereby it becomes possible to add to the mixture increased amounts of pigments or substrates. This proposal is, however, open to the objection that such unsaturated aliphatic acids disclose highly unpleasant physiological effects, so much the more so as relatively large quantities thereof are required.

According to the invention, these drawbacks can be avoided to a very considerable extent by adding to painting colors of the class mentioned heterocyclic carboxylic acids which will improve the luster and viscosity thereof. Instead of these

acids the corresponding aldehydes may be used, though with somewhat less satisfactory results. It is remarkable that these acids combine low toxicity with great strength so that the amounts needed for addition are much smaller than in case of known substances.

For the purposes of the invention the carboxylic acids chiefly to be considered are furan carboxylic acid, which can be produced at very low cost, or its hydrogenation products, though other carboxylic acids may of course be used also, or these acids may be replaced by the corresponding aldehydes, i. e. furfurole, or corresponding aldehydes of other heterocyclic acids.

The following examples serve to illustrate the invention without, however, restricting it to this disclosure:

Example 1

To 100 parts by weight of a commercial stand oil-zinc white-enamel varnish one part of technically pure furan carboxylic acid is added.

The varnish thus produced shows very good flow and uniform spreading. After application of the paint and also after drying of the layer an excellent high polish is noticeable.

Instead of furan carboxylic acid the hydrogenation products thereof or another heterocyclic carboxylic acid may be used.

Example 2

To 100 parts by weight of a commercial synthetic resin-zinc white-enamel varnish on a glycerin-phthalic acid resin base modified during preparation by the incorporation of linseed oil 1.5 parts by weight furfurole or 1 part by weight furan carboxylic acid is added and worked in.

The effect produced is also very good, and the paints or coats are distinguished by great usefulness.

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