ACCOUNT OF THE DISCLOSURE

A subject matter of the present disclosure is thus the use of a polymer resulting from the polymerization of 2-octyl acrylate of renewable origin and optionally at least one other monomer, as binding agent in or for the manufacture of a coating composition.

SUMMARY

In an aspect, there is provided the use of a polymer resulting from the polymerization of 2-octyl acrylate of renewable origin and ~~optionally~~ at least one other monomer, as binding agent in or for the manufacture of a coating composition, characterized in that the polymer has a glass transition temperature (Tg), calculated by Fox's law, of between -40°C and +40°C, the polymer is a copolymer including from 30% to 75% by weight and more preferably from 50% to 70% by weight of 2-octyl acrylate, with respect to the total weight of the copolymer, and said other monomer is chosen from: vinylaromatic monomers, such as styrene; ethylenically unsaturated nitriles, such as acrylonitrile; esters of ethylenically unsaturated mono- and dicarboxylic acids, such as 2-ethylhexyl acrylate, n-butyl acrylate, methyl methacrylate and itaconic acid esters; esters of monocarboxylic acid and vinyl or allyl alcohol, such as vinyl acetate; ethylenically unsaturated mono- and dicarboxylic and sulfonic acids, such as (meth)acrylic acid, itaconic acid and styrenesulfonic acids; amides of ethylenically unsaturated mono- and dicarboxylic acids, such as acrylamide; N-vinyllactams, such as N-vinyl-pyrrolidone; N-vinylamides; N,N-diallylamines;

N,N-diallyl-N-alkylamines; allyl- or vinyl-substituted nitrogenous heterocycles, such as N-vinylimidazole and vinyl- and allylpyridines; and their mixtures.

DETAILED DESCRIPTION OF EMBODIMENTS

In this invention, provision is made to use a specific polymer as binding agent in a coating composition.

The term "coating" is understood to mean, in the present description, a layer applied to a substrate in the film form, with a thickness generally of between 50 μm and a few mm, starting from a binding polymer with a Tg of between -40°C and +40°C according to Fox's law, said film being applied in a thickness sufficient to modify the appearance of the substrate, in particular its optical properties, and/or to protect its surface, in particular against scratches, moisture, dirt or light.

The term "coating composition" thus does not encompass the adhesive compositions intended to improve the adhesive properties of the substrate. On the other hand, it encompasses paint, mortar, coating, varnish and ink compositions, without this list being limiting.

In addition, in this description, the expression "of between" is understood as including the limits cited and also all the intermediate values, and the expression

CLAIMS

1. The use of a polymer resulting from the polymerization of 2-octyl acrylate of renewable origin and ~~optionally~~ at least one other monomer, as binding agent in or for the manufacture of a coating composition, characterized in that the polymer has a glass transition temperature (Tg), calculated by Fox's law, of between -40°C and +40°C, the polymer is a copolymer including from 30% to 75% by weight and more preferably from 50% to 70% by weight of 2-octyl acrylate, with respect to the total weight of the copolymer, .

~~2. The use as claimed in claim 1, characterized in that~~and said other monomer is chosen from: vinylaromatic monomers, such as styrene; ethylenically unsaturated nitriles, such as acrylonitrile; esters of ethylenically unsaturated mono- and dicarboxylic acids, such as 2-ethylhexyl acrylate, n-butyl acrylate, methyl methacrylate and itaconic acid esters; esters of monocarboxylic acid and vinyl or allyl alcohol, such as vinyl acetate; ethylenically unsaturated mono- and dicarboxylic and sulfonic acids, such as (meth)acrylic acid, itaconic acid and styrenesulfonic acids; amides of ethylenically unsaturated mono- and dicarboxylic acids, such as acrylamide; N-vinyllactams, such as N-vinylpyrrolidone; N-vinylamides; N,N-diallylamines; N,N-diallyl-N-alkylamines; allyl- or vinyl-substituted nitrogenous heterocycles, such as N-vinylimidazole and vinyl- and allylpyridines; and their mixtures.

~~3~~2. The use as claimed in claim ~~2~~1, characterized in that said other monomer is chosen from esters of ethylenically unsaturated mono- and dicarboxylic acids, in particular methyl methacrylate and n-butyl acrylate, vinylaromatic monomers, more particularly styrene, and their mixtures.

~~43~~. The use as claimed ~~in any one of~~ claim~~s~~ 1 ~~to~~or 2~~3~~, characterized in that the polymer has a glass transition temperature (Tg), calculated by Fox's law, ranging from -30°C to +30°C, more preferably of between -10°C and +10°C, indeed even between -10°C and 0°C.

~~5. The use as claimed in any one of claims 1 to 4, characterized in that the polymer is a copolymer including from 30% to 75% by weight and more preferably from 50% to 70% by weight of 2-octyl acrylate, with respect to the total weight of the copolymer.~~

~~64~~. The use as claimed in any one of claims 1 to ~~53~~, characterized in that the coating composition is a paint, mortar, coating, varnish or ink composition.

~~75~~. The use as claimed in any one of claims 1 to ~~64~~, characterized in that the polymer represents, by dry weight, from 5% to 50% by weight and preferably from 20% to 40% by weight, with respect to the total weight of the composition.