

ALIEN PROPERTY CUSTODIAN

PROCESS FOR THE MANUFACTURE OF A LINOLEUM-LIKE PRODUCT BY EMPLOYING SUBSTANCES EXTRACTED FROM TOMATO SKINS

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Processes whereby gummy or plastic substances may be obtained by treatment of tomato skins are already known. The extraction may be carried out e. g. by treatment of the skins with caustic alkalies in order to saponify the substances contained in the skins. The alkaline solutions thus obtained are decomposed by treatment with acids and the precipitated substances are then washed and eventually condensed or further treated.

We have now found that by starting from the last mentioned substances and subjecting them to further treatments e. g. polymerization in the presence of colophony and/or the like, it is possible to obtain a cohesive substance which may replace the usual linoleum cement, obtained from linoxyn, thus preparing a linoleum-like product.

The polymerization treatment object of the present invention consists in the fact that e. g. the gummy substances are brought to a convenient temperature in the presence of colophony and/or the like resins whereby polymerization is effected in such a way as to obtain a tough, elastic, cohesive substance resembling ordinary linoleum obtained from linoxyn.

The proportion between the substances obtained by extraction from tomato skins and colophony and/or other like resins may vary in the same way as in the ordinary linoleum composition. It is obvious that the above description is only by way of example and not exclusive.

With the cohesive substance thus prepared, a mixture similar to those employed in the ordinary linoleum manufacture may be obtained which may then be calendered and pressed upon a backing, thus obtaining a product similar to linoleum and showing the same characteristics in so far as its practical applications are concerned.

In order to better understand the present invention the following example is given:

70 parts of substances extracted from tomato skins as above described are mixed with 30 parts of colophony, the polymerisation being subsequently carried out at a convenient temperature thus obtaining a cement which may substitute the ordinary linoleum cement.

Subsequently,

| | |
|---------------------------|-------|
| | Parts |
| Cement thus obtained----- | 300 |
| Cork flour----- | 350 |
| Ochre and colouring----- | 160 |

matters are worked together in the mixers usually employed in the linoleum industry; the mixture thus obtained is calendered and pressed upon a backing. In this way a product similar to linoleum is obtained having the same characteristics in respect of practical applications.

Instead of totally employing the cement prepared as above disclosed starting from substances extracted from tomato skins, it may be employed

only partially together with the ordinary cement obtained from a mixture of linoxyn and resins.

The proportion of the two cements may practically be whatever, anyhow the more convenient amount is of about 50% for each type of cement.

Example

| | |
|--|-------|
| | Parts |
| Cement obtained by using the cohesive agent extracted from tomato skins----- | 150 |
| Ordinary cement obtained by using linoxyn----- | 150 |
| Cork flour----- | 300 |
| Ochre or colouring matters----- | 160 |

are worked together in the mixers usually employed in the linoleum industry and the mixture thus obtained is calendered or pressed upon a backing.

As an alternative to the process for extracting gum-resin substances from skins as above disclosed after alkaline treatment in a vessel, instead of separating from the exhausted skins, by filtration or decantation, the liquid portion and continuing the subsequent operations only on the liquid portion, the acid treatment is applied on the whole mass so that also the insoluble portion of the skin will precipitate together with the resinous substances.

The mixed precipitate thus obtained is then subjected to the above mentioned subsequent polymerisation treatments and then is employed for the manufacture of linoleum.

The portion of the exhausted skins insoluble in the alkaline solution, represents about 20% of the dry skins treated and mainly consist of cellulose and lignin containing also, in a smaller proportion, polysaccharides and nitrogen containing substances i. e. its composition is similar to that of wood and may thus conveniently be used as a filler, either as it is or after being separated and subsequently treated in any suitable way.

Example

| | |
|---|-------|
| | Parts |
| Mixed precipitate containing besides the resinous substances also skins residue in the proportion of 20%----- | 84 |
| and | |

Colophony are polymerised in the same manner as above disclosed thus obtaining the desired cement-----

| | |
|----------------------------------|-------|
| | Parts |
| Cement thus obtained----- | 342 |
| Cork flour----- | 340 |
| Ochre and colouring matters----- | 130 |

are worked together as described in the previous examples thus obtaining a product similar to linoleum which is like to the one obtained according to the two above mentioned examples.

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