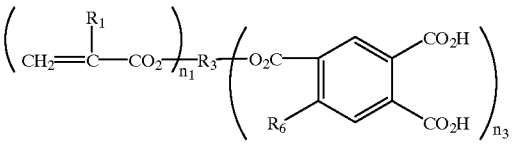
The carboxylic acid groups-containing monomer (B) of the present invention is a monomer having in one molecule a plurality of carboxyl groups or groups which readily react with water to produce a carboxyl group, such as acid anhydrides or acid halides, and at least one polymerizable unsaturated group.

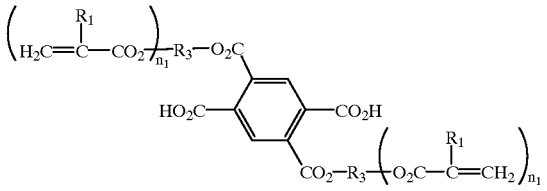
Illustrative examples of the compound include trimellitic acid derivatives represented by the following general formula (4) and acid anhydrides and acid halides thereof; pyromellitic acid derivatives represented by the following general formula (4) and (5) and acid anhydrides and acid halides thereof; malonic acid derivatives represented by the following general formula (6) and acid anhydrides and acid halides thereof; 6-(meth)acryloxyethylnaphthalene-1,2,6-tricarboxylic acid; N-(meth)acryloylaspartic acid; and the like.

(4)

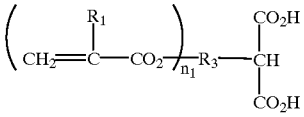


-continued

(5)



(6)



wherein R_1 is hydrogen atom or a methyl group, R_3 is an organic group having a valence of 2 to 6 and 1 to 30 carbon atoms, which may have an ether linkage and/or an ester linkage, R_6 is hydrogen atom or a carboxyl group, n_1 is an integer of 1 to 5, and n_3 is 1 or 2.

Preferred examples of the carboxylic acid groups-containing monomer represented by the general formula (4) are as follows.