【CLAIMS】

【Claim 1】

A curable petroleum resin comprising a repeating unit derived from a petroleum resin monomer (A), a repeating unit derived from a silane monomer (B) and a repeating unit derived from a styrene-based monomer (C).

【Claim 2】

The curable petroleum resin according to claim 1, wherein the styrene-based monomer is one or more selected from a group consisting of styrene, α-methylstyrene, 3-methylstyrene, 4-methylstyrene, 2,4-dimethylstyrene, 2,5-dimethylstyrene, 2-methyl-4-chlorostyrene, 2,4,6-trimethylstyrene, cis-β-methylstyrene, trans-β-methylstyrene, 4-methyl-α-methylstyrene, 4-fluoro-α-methylstyrene, 4-chloro-α-methylstyrene, 4-bromo-α-methylstyrene, 4-t-butylstyrene, 2-fluorostyrene, 3-fluorostyrene, 4-fluorostyrene, 2,4-difluorostyrene, 2,3,4,5,6-pentafluorostyrene, 2-chlorostyrene, 3-chlorostyrene, 4-chlorostyrene, 2,4-dichlorostyrene, 2,6-dichlorostyrene, octachlorostyrene, 2-bromostyrene, 3-bromostyrene, 4-bromostyrene, 2,4-dibromostyrene, α-bromostyrene, β-bromostyrene, 2-hydroxystyrene, 4-hydroxystyrene and a mixture thereof.

【Claim 3】

The curable petroleum resin according to claim 1, wherein the petroleum resin monomer is one selected from a group consisting of a mixed C5 fraction, a mixed C9 fraction and dicyclopentadiene obtained from naphtha cracking.

【Claim 4】

The curable petroleum resin according to claim 1, wherein the silane monomer is represented by Chemical Formula 2:

[Chemical Formula 2]

$$CH_2=CH(R_1)-(COO)_x(C_nH_{2n})_ySi(R_2)(R_3)(R_4)$$

wherein R_1 is hydrogen or a methyl group, each of R_2 through R_4, which are identical to or different from each other, is hydrogen, a C_1-C_{20} alkyl group, a C_3-C_{12} cycloalkyl group, a C_1-C_{12} alkoxy group, a C_2-C_{12} acyloxy group, a C_6-C_{30} aryloxy group, a C_5-C_{30} araloxy group or a C_1-C_{20} amine group, n is an integer from 1 to 12, and each of x and y is 0 or 1.

【Claim 5】

The curable petroleum resin according to claim 4, wherein R_1 is hydrogen or a methyl group, each of R_2 through R_4, which are identical to or different from each other, is a C_1-C_6 alkyl group or a C_1-C_6 alkoxy group, n is an integer from 1 to 6, each of x and y is 0 or 1.

【Claim 6】

The curable petroleum resin according to claim 4, wherein the silane monomer is one selected from a group consisting of vinyltrimethylsilane, vinyltrimethoxysilane, vinyltriethoxysilane, triacetoxyvinylsilane, triphenylvinylsilane, tris(2-methoxyethoxy)vinylsilane, 3-(trimethoxysilyl)propyl methacrylate and γ-(meth)acryloxypropyltrimethoxysilane.

【Claim 7】

The curable petroleum resin according to claim 1, wherein the curable petroleum resin comprises 30-70 wt% of the repeating unit derived from a petroleum resin monomer (A), 10-40 wt% of the repeating unit derived from a silane monomer (B) and 10-40 wt% repeating unit derived from a styrene-based monomer (C) based on 100 wt% of the total repeating units.

【Claim 8】

The curable petroleum resin according to claim 1, wherein the curable petroleum resin has a softening point of 70-150 ºC and a weight-average molecular weight (M_w) of 500-5000 g/mol.

【Claim 9】

A reactive adhesive composition comprising a polyolefin-based base polymer, a petroleum resin and a catalyst, wherein the petroleum resin is the curable petroleum resin according to any of claims 1 to 8.

【Claim 10】

The reactive adhesive composition according to claim 9, wherein the reactive adhesive composition comprises 70-94 wt% of a polyolefin-based base polymer, 5-29.9 wt% of a petroleum resin and 0.1-10 wt% of a catalyst based on 100 wt% of the total composition.

【Claim 11】

The reactive adhesive composition according to claim 9, wherein the polyolefin-based base polymer is one or more selected from a group consisting of poly-α-olefin, a polyolefin homopolymer, a copolymer thereof and a blend thereof.