CLAIMS

1. Use of 2 to 6% by mass of Fischer-Tropsch waxes, with respect to the mass of the cross-linked bitumen/polymer composition, in a cross-linked bitumen/polymer composition comprising a cross-linked aromatic monovinyl hydrocarbon and conjugated diene copolymer, for improving said cross-linked bitumen/polymer composition's resistance to ~~aggressive chemical agents~~ petroleum hydrocarbons.~~.~~

2. Use according to claim 1, in which the cross-linked aromatic monovinyl hydrocarbon and conjugated diene copolymer is a cross-linked styrene and butadiene copolymer.

3. Use according to claim 1 or 2, in which the aromatic monovinyl hydrocarbon and conjugated diene, in particular styrene and butadiene, copolymer has a content of 1,2 double bond units originating from the conjugated diene, comprised between 5% and 50% by mass, with respect to the total mass of the conjugated diene units, preferably between 10% and 40%, more preferentially between 15% and 30%, even more preferentially between 18% and 25%, even more preferentially between 18% and 23%, or between 20% and 25%.

4. Use according to claim 1, 2 or 3, in which the aromatic monovinyl hydrocarbon and conjugated diene copolymer is combined with a cross-linking agent.

5. Use according to claim 4, in which the cross-linking agent comprises flowers of sulphur.

6. Use according to claim 4, in which the cross-linking agent is chosen from the compounds of general formula HS-R-SH, where R represents a saturated or unsaturated, linear or branched hydrocarbon group with 2 to 40 carbon atoms, optionally comprising one or more heteroatoms, such as oxygen.

7. Use according to any one of claims 1 to 6, in which the cross-linked bitumen/polymer composition comprises from 1 to 10% by mass of aromatic monovinyl hydrocarbon and conjugated diene copolymer, with respect to the mass of the cross-linked bitumen/polymer composition, preferably from 2 to 8%, more preferentially 3 to 6%, even more preferentially 4 to 5%.

8. Use according to any one of claims 4 to 6, in which the cross-linked bitumen/polymer composition comprises from 0.05 to 5% by mass of cross-linking agent, with respect to the mass of the cross-linked bitumen/polymer composition, preferably between 0.1% and 2%, more preferentially between 0.2% and 1%, even more preferentially between 0.3% and 0.5%.

9. Use according to any one of claims 1 to 8, in which the quantity of Fischer-Tropsch waxes in the cross-linked bitumen/polymer composition is comprised between 3 and 6% by mass, with respect to the mass of the cross-linked bitumen/polymer composition, preferably between 3% and 5%, more preferentially between 3% and 4%.

10. Use according to any one of claims 1 to 9, in which the ~~aggressive chemical agents are hydrocarbons, preferably~~ petroleum hydrocarbons ~~such as~~are kerosenes, gasolines and/or gas oils.

~~**11.** Use according to any one of claims 1 to 9, in which the aggressive chemical agents are products used for de-icing, defrosting and/or snow removal, preferably saline solutions and/or compositions based on ethylene glycol and/or based on propylene glycol.~~

~~12.~~11. Use according to any one of claims 1 to ~~11~~10 for improving the cross-linked bitumen/polymer composition's resistance to ~~aggressive chemical agents~~petroleum hydrocarbons when it is used as a surface layer in a roadway application.

~~13.~~12. Use according to any one of claims 1 to ~~12~~11 for improving the cross-linked bitumen/polymer composition's resistance to ~~aggressive chemical agents~~petroleum hydrocarbons when it is in a mixture with aggregates in a bituminous mix.

~~14.~~13. Cross-linked bitumen/polymer composition, preferably without cross-linking agent, comprising at least one bitumen, at least 2 to 6% by mass of Fischer-Tropsch waxes, with respect to the mass of the cross-linked bitumen/polymer composition and at least one aromatic monovinyl hydrocarbon and conjugated diene copolymer which has a content of 1,2 double bond units originating from the conjugated diene, comprised between 5 and 50% by mass, with respect to the total mass of the conjugated diene units, preferably between 10% and 40%, more preferentially between 15% and 30%, even more preferentially between 18% and 25%, and even more preferentially between 18% and 23% or between 20% and 25%.

~~15.~~14. Cross-linked bitumen/polymer composition comprising at least one bitumen, at least 2 to 6% by mass of Fischer-Tropsch waxes, with respect to the mass of the cross-linked bitumen/polymer composition, at least one aromatic monovinyl hydrocarbon and conjugated diene copolymer and at least one cross-linking agent chosen from the compounds of general formula HS-R-SH, where R represents a saturated or unsaturated, linear or branched hydrocarbon group with 2 to 40 carbon atoms, optionally comprising one or more heteroatoms, such as oxygen.

~~16.~~15. Cross-linked bitumen/polymer composition according to claim ~~14~~13 or ~~15~~14, in which the aromatic monovinyl hydrocarbon and conjugated diene copolymer is a styrene and butadiene copolymer.

~~17.~~16. Cross-linked bitumen/polymer composition according to claim ~~14~~13, ~~15~~14 or ~~16~~15 comprising between 2 and 8% by mass of aromatic monovinyl hydrocarbon and conjugated diene copolymer, with respect to the mass of the cross-linked bitumen/polymer composition, preferably between 3% and 7%, more preferentially between 4% and 5%.

~~18.~~17. Cross-linked bitumen/polymer composition according to any one of claims ~~14~~13 to ~~17~~16 comprising between 3 and 6% by mass of Fischer-Tropsch waxes, with respect to the mass of the cross-linked bitumen/polymer composition, preferably between 3% and 5%, more preferentially between 3% and 4%.

~~19.~~18. Method for preparing a cross-linked bitumen/polymer composition according to claim ~~14~~13, or any one of claims ~~16~~15 to ~~18~~17, in which firstly the following are brought into contact between 120°C and 220°C, preferably between 140°C and 200°C, more preferentially between 160°C and 180°C, for a period of 1 hour to 48 hours, preferably 4 hours to 24 hours, more preferentially 8 hours to 16 hours: at least one bitumen, at least one aromatic monovinyl hydrocarbon and conjugated diene copolymer, which has a content of 1,2 double bond units derived from the conjugated diene comprised between 5 and 50% by mass, with respect to the total mass of the conjugated diene units, preferably between 10% and 40%, more preferentially between 15% and 30%, even more preferentially between 18% and 25%, and even more preferentially between 18% and 23% or between 20% and 25%, and optionally at least one cross-linking agent, then said mixture is brought into contact, between 120°C and 220°C, preferably between 140°C and 200°C, more preferentially between 160°C and 180°C, for a period of 30 minutes to 48 hours, preferably 1 hour to 24 hours, more preferentially 4 hours to 16 hours, with 2 to 6% by mass of Fischer-Tropsch waxes.

~~20.~~19. Method for preparing a cross-linked bitumen/polymer composition according to any one of claims ~~15~~14 to ~~18~~17, in which firstly the following are brought into contact between 120°C and 220°C, preferably between 140°C and 200°C, more preferentially between 160°C and 180°C, for a period of 1 hour to 48 hours, preferably 4 hours to 24 hours, more preferentially 8 hours to 16 hours: at least one bitumen, at least one aromatic monovinyl hydrocarbon and conjugated diene copolymer, and at least one cross-linking agent chosen from the compounds of general formula HS-R-SH, where R represents a saturated or unsaturated, linear or branched hydrocarbon group with 2 to 40 carbon atoms,

optionally comprising one or more heteroatoms, such as oxygen, then said mixture is brought into contact, between 120°C and 220°C, preferably between 140°C and 200°C, more preferentially between 160°C and 180°C, for a period of 30 minutes to 48 hours, preferably 1 hour to 24 hours, more preferentially 4 hours to 16 hours, with 2 to 6% by mass of Fischer-Tropsch waxes.

~~21.~~20. Bituminous mix comprising a cross-linked bitumen/polymer composition according to any one of claims ~~14~~13 to ~~18~~17 mixed with aggregates.

~~22.~~21. Method for preparing a bituminous mix according to claim ~~21~~20, in which the aggregates and the cross-linked bitumen/polymer composition according to any one of claims ~~14~~13 to ~~18~~17 are mixed between 120°C and 220°C, preferably between 140°C and 200°C, more preferentially between 160°C and 180°C.