Before using this formulation on historic surfaces, please do small tests first for compatibility in every single case! –

You will need the following “ingredients" (reference sources see attached links):

- **Tecero microcrystalline wax 30222** (properties and technical notes on this see link)
http://www.deffner-johann.de/tecero-wachs-30222.html (will also ship to the US). Maybe there’s also a possibility of buying the material at one of the producer’s US distributors, please directly contact the producer about this:

Wachs- und Ceresin-Fabriken TH. C. TROMM GmbH
Feuerstrasse 7-17
D-50735 Köln/Cologne
Phone:+49 (0)221 97 45 52-0
Fax: +49 (0)221 97 45 52-30
Website: http://eng.wax-tromm.de/

- **Shellsol T** (properties and technical notes on this solvent see link):
http://shop.kremerpigments.com/en/solvents-chemicals-und-additives/solvents/5803/shellsol-t
A similar product is sold in the US under the trade name Shellsol D60:
http://www.shell.com/business-customers/chemicals/our-products/solvents-hydrocarbon/aliphatic-mineral-spirits.html

- A **heat-resistant container with tight closing lid** (for example a sturdy marmalade jar with screw cap)

- An **old cooking pot filled with water** (to make a water quench)

- An **electric cooking plate or electric stove**. Please note: GAS STOVES ARE NOT SUITABLE, as an open flame is much too dangerous here!

The preparation of the wax mixture (FOLLOW AT YOUR OWN RISK!)

- The mixing ratio between wax and solvent can be measured with a small beaker. Fill the jar with about 2 parts of wax and 5 parts of solvent. If you prefer a less fluid/more “creamy” consistency, you can adjust the mixing ratio to about 2 wax : 3,5 solvent (- this is advisable if you have to deal with porous, strongly aged surfaces). Sometimes other modifications of the formulation may be necessary (for example a slower drying wax mixtures), - please contact me directly for details in this case.

- Close the glass tightly.

- Fill the cooking pot with water, so it will reach about up to 2/3 the height of the glass to make a water quench

- put the glass in water and the pot on the stove

- bring the water to a boil.

- It will take some time in the simmering water quench until the milky-white wax and the clear solvent combine to a uniform, clear liquid. IT IS VERY IMPORTANT TO KEEP THE LID CLOSED TIGHTLY, otherwise the solvent will run out or evaporate.

- NEVER PLACE THE GLASS DIRECTLY ON THE STOVE, otherwise it can become too hot, the glass can burst and most important, the mixture may ignite!!!!!!

- If wax and solvent have blended to a clear solution, turn off the stove and get the glass out of the water. (- in every case use oven mitts here, as the glass will be very hot!). Gently shake the tightly closed glass to stir well the mixture.
It is advisable to fill the wax-mixture into a relatively flat container with tight lid while it is still hot & liquid. The formulation will turn into a uniform white cream when cooling. Then you can easily take out of the container with a soft cloth to use it.

Application of the wax paste (- at your own risk and please make preliminary tests in every single case, - if any changes in the surface appear, please don not proceed!).

- before applying the wax cautiously clean the surface with one of the following methods:

- watery cleaning: Add a shot of neutral detergent in water and gently wipe the surface with this mixture and a soft cloth
  A suitable neutral cleaning agent can be for example a product called Tanet Neutral: http://wmprof.com/en/int/products_7/SI_EN_TANET_neutral_61296.html
  The same product also is sold under der name “Frog Neutral Cleaner” by US distributors:
  https://froschusa.com/collections/all-purpose-cleaners/products/universal-cleaner-ph-neutral-1l?variant=1779678593
  or http://mydeli.us/drugstore/687-frog-neutral-cleaner-1l-4001499012907.html
  Clean the surfaces again with a soft, clean cloth and clear water after using the detergent to remove chemical residues.

- the water-free cleaning method with white spirit or petroleum
  (this method can be recommended for strongly patinated surfaces with paint damages down to the metal, were watery cleaning may cause more corrosion).

Always take care of safety and proper ventilation during work!
It is important to let the body dry for one day so the water can evaporate from pores or fine cracks. The same applies to water-free cleaning with petroleum.

- In case of rough, scattered surfaces DO NOT use terry-like microfibre cloth, since the loops will easily “hook” and tear particles from the surface. In these cases, extreme caution will be necessary, when a cleaning without losses shall be achieved.

- It is important to let the body dry for one day so the water/solvent can fully evaporate from pores or fine cracks.

- Then the wax mixture can be applied to the surfaces with a lint-free, clean and soft cloth (similar in a way to polishing shoes).

With the wax matte areas in the surface can be compensated to a certain extent and a water-repelling surface will be obtained. The procedure can be repeated from time to time when you see the water is not rolling off the paint so well any more. Depending on the individual case and dealing with strongly aged, “open pored” surfaces it may be suitable to apply one coating of wax, polish and let the car stand in the sun for about 30min, then repeat the application.
This wax does not (and is not intended to) reach the extreme gloss of industrial products for vehicle detailing. Therefor it will give a suitable and honest appearance to gracefully aged historic surfaces.

Direct exposure to sunlight after a rain shower may cause changes and discolorations in historic coatings, even with the protective wax layer. In this case spherical water drops left on the surface will act like small "burning glasses" and thus dramatically increase punctual UV exposure (reaching through the transparent wax). This may also lead to a destruction of pigments inside the paint layer.

Damages caused by aggressive solvents like glass cleaner, antifreeze or brake fluids, but also sunscreen cosmetics (transferred for example when pushing the car or handling the doors) can not be prevented by any wax layer. Some of these substances may even have destructive effects on as-good-as-new modern 2k paint systems and should not at all come into contact with historic coatings.