Topcoat vs Gelcoat - Explained :

Topcoat, also known as flowcoat is the term used for gelcoat which has had wax solution added to allow it to be used as a finish like gelcoat where it is not possible to use a fiberglass mould.
All polyester gelcoats suffer from inhibited cure when in contact with the oxygen in the atmosphere. Topcoats contain a low percentage of wax, which is not really soluble in the gelcoat and floats to the surface. This blocks out the air and ensures a full surface cure.Gelcoat is normally applied to a mould surface which is not exposed.
Wax Solution is added to the gelcoat at 2% by weight to prevent surface tackiness. The gelcoat has now become topcoat and should never be used for anything other than topcoating as resin & gelcoat will not adhere to it. Topcoat is not a high finish paint but it does make a very waterproof hard wearing surface for fiberglass. When dry some brush marks may be evident. When fully cured it can be sanded with wet & dry paper followed by polishing with cutting compound.

Preparation of surface Existing GRP mouldings must be abraded with at least 100 grit sand paper so that the topcoat will adhere. A new fibreglass laminate does not need any preparation. Old fibreglass laminates will benefit from a quick sanding. Painted surfaces usually react badly with topcoat so it is advisable to remove all paint by sanding. Only paint strippers designed for use on fibreglass should be used. All surfaces should be clean & dust free. Finally wipe with acetone solvent and allow to dry.
MixingCorrect mixing is important to achieve the best results. Wax Solution should be stirred into the gelcoat at the rate of 2% by weight. Because of the slippery properties of wax solution extra care should be taken to ensure thorough mixing. Alternatively you can buy premixed topcoat from CFS.
Colour Pigment Pigment can be added to the topcoat at the maximum rate of 10% by weight and again thoroughly stirred. It is preferable to add pigment to the total batch of topcoat required for the job in hand to avoid possible shade differences.

CatalystCatalyst is added and stirred to activate the topcoat. Add catalyst at the rate of 2%-3% but never less than 1.5%. Mix enough topcoat for no more than 2m2 to avoid wasting material. Application can be made by brush or short hair roller resistant to polyester resins. Apply briskly. Once applied the topcoat will start to skin fairly quickly so avoid fiddling after application. Level the surface as you go.

CoverageApprox. 600g per m2 of topcoat is required.

CuringWhen activated with catalyst at 2% in temperatures of 20ºC pot life is approx. 20 mins. Higher temperatures and higher catalyst additions will reduce pot life.

Working in hot conditions Unfortunately at very high temperatures, especially under direct sunlight, the wax becomes more soluble and does not rise to the surface leading to an inhibited and poorly cured surface area.
This under-cured area can remain tacky to the touch and is also prone to soften and swell when exposed to water leading to a white bloom.

If possible use a temperature sensor to measure the surface temperature of the laminate before applying the topcoat. It is not recommended to apply topcoat on surfaces above 35ºC. Apply the topcoat out of direct sunlight or wait until the laminate and working conditions have cooled. To gain a good bond to the laminate the topcoat should be applied within 24 hours. If this is not possible the surface should be abraded with 100 grit sand paper then wiped with acetone before application.

. Stir topcoat well before use to ensure good mixing of topcoat and styrene.