

FORMULA 40[®] VINYLKOTE PRODUCT BENEFITS

- * Single Process/one pack application.
- * Chemical bond rather than surface coating.
 - * Environmentally friendly no CFCs.
 - * Encourages recycling.
- * Facilitates reprocessing of waste/offcut material.

Non toxic.

- * Simple low cost application.
- * Low capital cost of spray installation.
- * Cost effective material/application combination.
 - * 'In situ' application, including touch up.
- * RAL, BS colours and Kolor Coatings Limited standard range.
 - * Variable gloss levels (gloss, satin, matt).
 - * Rapid drying.
 - * Available in aerosol and conventional spray sizes.
 - * UV stable pigments.
 - * Improves UV resistance of substrate, reducing chalking.
 - * Weather resistant and highly durable.
 - * Suitable for all soft plastics.
 - * Passed all routine industry tests.
 - Independently tested and passed the standards used by the FAA (USA) for fire resistance.

PRODUCT INFORMATION FORMULA 40[®] VINYLKOTE

Colour change or reconditioning:

Formula 40[®] Vinylkote works in a unique and remarkable way. It actually penetrates the surface to the substrate, bonding itself to the molecules and changing the pigmentation. This means that, if applied correctly, it will not crack, peel or flake off. It is permanent and colour fast and because it is not simply a surface coating, even the grain of vinyl or leather is left intact and in perfect relief. Leather can be fed with hide food afterwards and will retain its familiar "leather" smell.

Applications for Formula 40[®] Vinylkote

Formula 40[®] Vinylkote can be used on vinyl or leather car upholstery and door panels, vinyl roofs, dashboard trim, vinyl wheel trims, vinyl boot interiors, lorry curtains etc.

Formula 40[®] Vinylkote is supplied in 1-litre, 5-litre and 20-litre cans. The product may then be applied by spray gun. It is possible to apply **Formula 40[®] Vinylkote** by brush, but this is **not** recommended as it tends to dry quickly and leave brush marks. If necessary, small areas may however, be touched up using a brush.

Tips on using Formula 40[®] Vinylkote

To allow **Formula 40[®] Vinylkote** to penetrate the substrate, it is important to apply it in "mist" coats. No attempt should be made to try and cover the article in one coat. Applying **Formula 40[®] Vinylkote** too thickly can result in solvent trapping which will leave the surface "tacky" for some time, and could prevent proper penetration. Only 10 to 15 minutes need be allowed between mist coats if they have been applied correctly. The re-coloured item may be handled approximately 15 minutes later although full cure will take about 24 hours, dependent on temperature and conditions.

Thorough cleaning of the surface before applying **Formula 40**[®] **Vinylkote** is also essential, to remove anything that may cause a barrier to the penetration. **Formula 40**[®] **Vinylkleen** is a detergent based cleaner ideal for removing any grease, dirt or silicones from the surface. In instances where the surface may previously have been painted or given a protective coating of lacquer (as is sometimes the case with the seats of "soft top" or convertible cars), **Formula 40**[®] **Vinylprep** should be used to remove this coating. A light application of **Formula 40**[®] **Vinylprep** will cause the surface of the vinyl to become "tacky." This is not normally a problem but is a good sign that when the **Formula 40**[®] **Vinylkote** is applied it will achieve good penetration.

Spraying Formula 40[®] Vinylkote

Using **Formula 40**[®] **Vinylkote** in one litre cans is an economical means of application, but it should be applied by spray gun as mentioned previously. Care should be taken to ensure that the gun is not held too closely to the surface. Apply in light mist coats.

Stock Colours Available

Formula 40[®] Vinylkote is available in the RAL & BS spectrum

FORMULA 40[®] VINYLKOTE APPLICATION PROCESS

- 1.) Use Formula 40[®] Vinylkleen to thoroughly clean all soft plastic and leather trim, to be recoloured. Formula 40[®] Vinylkleen removes dirt, polish, wax, silicones and other surface contaminations. The use of a stiff brush or similar, will speed the cleaning process and lightly etch the surface. Formula 40[®] Vinylkleen should be applied with a lint free cloth or soft brush. Wipe any residual Formula 40[®] Vinylkleen with a lint free cloth and allow to dry.
- 2.) Formula 40[®] Vinylprep must then be used to remove any contamination or surface coatings still present. Allow to dry. Use Formula 40[®] Vinylprep sparingly on PVC and ABS-type plastics as Formula 40[®] Vinylprep will soften this type of plastic. If the plastic does soften or become "tacky" to the touch, the plastic is ready for recolouring after the Formula 40[®] Vinylprep has dried. Leather will not become "tacky" and is ready for recolouring once the leather becomes "squeaky" clean and the Formula 40[®] Vinylprep has dried. Mask areas not to be sprayed by using traditional masking paper and tape. Ensure the surface is completely dry and free from solvent before applying Formula 40[®] Vinylkote.
- 3.) **Formula 40[®] Vinylkote** can be applied with air or airless spray gun. Suction fed air operated spray guns should be used, for **Formula 40[®] Vinylkote**, at a pressure of 20-30 p.s.i. using a 30 air cap and EX SET UP. Apply in mist coats only, solvent trapping will cause poor adhesion, and low gloss levels.

Formula 40[®] Vinylkote colour should then be applied in mist coats only (See Notes 7 and 8). Allow 10-15 minutes flash off between coats. Remember, surface penetration is the main aim of these mist coats, do not try to cover with each coat or the bond may not take place. Apply **Formula 40[®] Vinylkote** to substrate until the surface has been evenly recoloured. 2-5 mist coats should suffice, depending on colour and substrate. Some colour changes may need an intermediate coat of **Formula 40[®] Vinylkote Primer** before the required colour is applied. Test on a small area before full application.

- 4.) **Formula 40[®] Vinylkote Clear** can then be applied over the recoloured surface after the final colour coat has dried off, **if required.** This can enhance the finish by giving an improved glossy lustre to the newly recoloured surface. The recoloured item can be handled after 20-30 minutes with complete safety and can, if required, be recoloured again by using the same or different **Formula 40[®] Vinylkote** colour using the same process.
- 5.) **Formula 40[®] Vinylsheen** should be used, for the future cleaning and protection of **Formula 40[®] Vinylkote.** This silicon based product will give a long, lasting sheen to any hard plastic or soft plastic/leather surface in the car or home and can even temporarily restore the colour on faded non recoloured plastic.
- 6.) Some leather substrates may have dried out due to age. To soften leather before applying **Formula 40**[®] **Vinylkote**, Hide Food could be applied sparingly to the leather in several coats until the leather is once again supple. Allow 24 hours after the final treatment of Hide Food before continuing with the recolouring process. Reclean as in Note 2, allow to dry and continue with Note 3, ensuring no residue from the hide food remains as this will impair the bonding process.

- 7.) When applying Formula 40[®] Vinylkote to a PVC curtain, thoroughly clean as in Notes 1 and 2 above. Once the surface is completely dry, apply Formula 40[®] Vinylkote Primer ground coat to the curtain, obliterating all previous colour. 2-5 coats should suffice allowing 10- 15 minutes between coats. The new colour affect can now be applied on to this neutral surface giving excellent colour definition. When striping, tape up times are as little as 15 minutes after flash off. 2-5 coats of new colour system per colour will be adequate. Formula 40[®] Vinylkote will not work on a previously two-pack painted curtain. Always apply to a small test area in the normal way ensuring penetration of the substrate has occurred. Use sticky tape to help check this procedure.
- 8.) After **Formula 40[®] Vinylkote** has fully cured, Hide Food Leather Conditioner can be used to feed newly recoloured leather in the normal way.
- 9.) Full curing time is 16-24 hours. All drying times are given at 16° C, room temperature and in dry conditions. The use of heat will improve drying times. High humidity and damp conditions will effect drying times, cause poor adhesion and/or a blooming effect, giving a gloss loss. Avoid application in such adverse conditions.

HINTS AND TIPS FOR USING FORMULA 40[®] VINYLKOTE

- 1.) Read the Application Process Charts before use.
- 2.) Always apply in mist coats only. Remember, use **Vinylkote** for soft plastics, vinyl and leather. Do not forget you are trying to achieve surface penetration.
- 3.) To matt any gloss colour, add 90g of Formula 40[®] Vinylkote Matting Agent. (Do not use Formula 40[®] Bumpercoat Matting Agent in Formula 40[®] Vinylkote).
- 4.) When using Formula 40[®] Vinylkote on an unknown substrate, always do a simple tape test to ensure penetration has been achieved, ie spray a small amount of Formula 40[®] Vinylkote on to the surface, after the correct preparation. Allow to dry. Place some sticky tape over the cured product (masking tape or sellotape). Then remove the tape quickly. If surface penetration has not been achieved for some reason, Formula 40[®] Vinylkote may be present on the tape. In this instance, remove sprayed product with Formula 40[®] Vinylprep, reclean and investigate substrate makeup further. If in doubt, contact your distributor or Kolor Coatings Limited directly.
- 5.) Some leathers may be thoroughly dried out due to age. After cleaning with Formula 40[®] Vinylkleen and dried, hide food can be applied to the surface, if required. This will revitalise the leather. Allow 24 hours after the final hide food application, then rewipe the leather with Formula 40[®] Vinylprep prior to applying Formula 40[®] Vinylkote in mist coats only. Always do a tape test. Further hide food applications can be made once Formula 40[®] Vinylkote is cured.
- 6.) Because of the chemical nature of Formula 40[®] Vinylkote, certain colour changes, e.g. black to red, may require an intermediate coat of Formula 40[®] Vinylkote Primer to ensure that the required depth of colour is achieved without applying numerous coats. Formula 40[®] Vinylprep acts as a release agent for Formula 40[®] Vinylkote. Formula 40[®] Vinylprep softens ABS and similar plastic types, so use sparingly on these plastics.
- 7.) Do not use **Formula 40[®] Vinylkote** on metal surfaces.

- 8.) When applied correctly, a molecular bond takes place, so **Formula 40[®] Vinylkote** will not crack, peel or flake off. In the unlikely event of the aforementioned occurring, the product has been incorrectly applied. In most instances, when this fault occurs, part of the application process has been incorrectly followed. The only way to rectify this situation is to strip the surface, using **Formula 40[®] Vinylprep** and start again, doing a tape test before proceeding with the whole job.
- 9.) Always apply **Formula 40[®] Vinylkote** at a low pressure, i.e. 10-25 p.s.i., allowing 5-15 minutes flash off in between coats using a standard 30 air cap and ex set up or, if preferred a 43 cap and FF set up. Electric, airless sprayers or aerosol spray media, may also be used. Full cure takes between 16-20 hours dependent on conditions.
- 10.) Some leather surfaces have been coated or conolised with some form of clear lacquer coating. Although it may have worn away in places, it must be completely removed with Formula 40[®] Vinylprep prior to the application of Formula 40[®] Vinylkote or the bond might be affected. Always do a tape test before applying the product to large areas.
- 11.) Some plastics, although they have the appearance of hard plastics, are actually soft plastics ie some forms of styrene or polyethylene. **Formula 40[®] Vinylkote** can be applied with 100% success but always do a tape test.
- 12.) When applying **Formula 40[®] Vinylkote** to a PVCu curtain, thoroughly clean (see Application Process). Once the surface is completely dry, apply **Formula 40[®] Vinylkote Primer** to the curtain, obliterating all previous colour. 2 5 coats should suffice allowing 10 15 minutes between coats. The new colour effect can now be applied on to this neutral surface giving excellent colour definition. When striping, tape up times are as little as 15 minutes after flash off. 2 5 coats of new colour system per colour will be adequate. **Vinylkote** will **not** work on a curtain previously painted with a two-pack paint.

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In-house Test Data on Formula 40[®] Vinylkote

Stain Resistance

Common household items were applied to **Formula 40[®] Vinylkote** (which had been sprayed on to vinyl cloth and allowed to cure fully) these were then left in situ for 72 hours. These were then removed by wiping, picking etc. Any residual marks were cleaned with **Formula 40[®] Vinylkleen** (2 parts water to 1 **Formula 40[®] Vinylkleen**) using a non abrasive cloth. (5=no stain - 1=bad stain)

Stain Applied	Stain Effect	Stain Removal With Formula 40 [®] Vinylkleen	Comments
Lipstick	5	Removed	
Shoe Polish	1		Most was removed, but, some was ingrained in surface.
Chocolate	5	Removed	Very slight gloss loss.
Biro	2/3		Some removed, but, still evident.
Marker Pen	<1		Cleaning has no effect.
Milk	4		Cleans off, but leaves a stain.
Pepsi	5	Removed	
Margarine	5	Removed	Very slight gloss loss.
Jam	5	Removed	
Toffee	5	Removed	

NB. Please note that **Formula 40[®] Vinylkote** reacts in the same way to staining as vinyl and leather but, with the **Formula 40[®] Vinylkote** if the stain will not come out, remove the **Formula 40[®] Vinylkote** using **Formula 40[®] Vinylprep** in the specific area and re-apply, your surface will look as good as new.

Solvent Resistance

Solvent rubbed on with kitchen roll paper, a good deal of rubbing was needed to cause damage.

Gasoline - Removes Formula 40[®] Vinylkote with little rubbing.

Industrial Methylated Spirit - Removes Formula 40[®] Vinylkote with moderate rubbing

Kerosene - Removes Formula 40[®] Vinylkote with hard rubbing

Lightfastness

All pigments used in **Formula 40[®] Vinylkote** have a lightfastness of 7-8 (1 worst 8 the best)

Adhesion test on vinyl

Packing tape applied firmly and then pulled off sharply 100% adhesion.

Adhesion test on leather

Formula 40[®] Vinylkote adheres to most flexible leathers using standard application techniques. On thick stiff leathers slight variations on the application process have been found necessary for 100% adhesion. Always test a small area prior to full application.

Scuff Resistance

Surface rubbed with nylon cleaning pad (Scotch Bright) - 30 cycles with 1 kg of pressure required to remove paint down to the substrate.

Flexibility

Formula 40[®] Vinylkote applied to vinyl strip, strip stretched to breaking point. No loss of adhesion.