



Mini-Craft[®] OF FLORIDA, INC.

MARINE CLEAR GEL KOTE - SILVER SERIES (GL)761C30201

DESCRIPTION:

This marine clear gel kote is formulated specifically to be used in applications where an exterior clear gel kote is used. Examples include metalflake or clear kote backed with a solid color.

The Silver series is an advanced technology polyester developed for superior weathering resistance to surface yellowing and chalking.

761C30201 addresses these special needs involving a clear kote:

1. Exterior Durability: The Silver series is our premier clear gel kote for resistance to yellowing, fading and loss of gloss.
2. Application: Easy to spray with minimal air entrapment and good air release.
3. Sag Resistance: Sprayed films resist sagging and slumping.

TYPICAL PROPERTIES: (at 77°F)

These values may or may not be a manufacturing control criteria; they are listed for a reference guide only. Particular batches may not conform exactly to the numbers listed because storage conditions, temperature changes, age, testing equipment (type and procedure) can each have a significant effect on the test results. Gel Kotes with properties outside of these readings can perform acceptably. Final suitability of this product is in the end-use performance.

Viscosity: Brookfield	-----
RVF #4 sp at 20 RPM	3,300 - 4,000 cps
Thixotropic Index at 2/20 RPM	5.5 - 7.5
Flash Point	79°F
Non-Volatile Material	50.5%
Weight/Gallon	8.9 lbs.
Flash Point	88° F
Gel Time at 77°F with 1.8% JTS	8 - 13 minutes
Lay-up Time	45 - 60 minutes
Sag Resistance	Good at 20 mils

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(ADV)MC302

APPLICATION:

761C30201 is formulated for airless, air assist airless, and conventional spray application. Brushing or rolling is not recommended.

We recommend a gel kote delivery rate of no more than 2.5 pounds a minute with conventional air atomized equipment, and nor more than 4 pounds a minute with airless equipment.

Batch mixing is recommended to achieve the best catalyst mix and cure, because even with the equipment properly calibrated, potential problems can occur due to; poorly atomized catalyst, surging problems (gel kote or catalyst), poor tip alignment (catalyst to gel kote mix), contamination, and poor application procedures which will quickly negate all benefits of calibration. The equipment (and application procedures), must be monitored on a routine basis to ensure proper application and cure of gel kote. Inquire of and adhere to all equipment manufacturers' recommendations.

This product should go on clear. Any frosty appearance indicates the film thickness was applied too fast. Slow down, several passes are better than one.

Proper mold maintenance is important. Although 761C30201 has excellent patching properties, minimal repair work is always desirable. Sanding and compounding can hasten the chalking and loss of gloss of all gel kotes.

METALFLAKE:

Typical metalflake applications include a wet-on-wet approach. That is, an initial clear kote is sprayed on to the mold surface at 4 - 12 mils wet. Before that gels, a second kote of clear with metalflake is sprayed at anywhere from 12 to 20 mils wet. Finally, a pigmented backup color is sprayed at 5 - 12 mils wet. This system works as long as no individual coat is cured before the next coat is applied. If that happens, alligating can occur.

CLEAR KOTE SYSTEMS:

In some instances it is advantageous to spray a clear gel kote, and then back it with a solid color. This will protect against chalking and loss of gloss, but at the expense of color retention. Dark colors, such as black or red, demonstrate very little color change and are better choices. Light colors, and especially white, show maximum color change in exterior environments and should not be considered (even the superiority of these clears cannot overcome prolonged sunlight, and will eventually yellow). By contrast, metalflake applications show very little change, regardless of the metalflake color.

Occasionally cosmetic problems occur during applications, such as:

1. Tearing. The solid color slides and tears, leaving voids in the color. One cause is a thin film of clear. At least 6 mils of a continuous wet film are needed.
2. Grainy Surface. Allow the clear more time to "flash", generally at least 5 minutes is needed. Special Spray methods can also help, such as finer atomization or slower delivery rates.

The clear kote helps reduce cracking and crazing by combining strength plus stretch. Maximum protection occurs at wet film thicknesses of 8-12 mils. Films less than 8 mils have less strength. Films greater than 12 mils have less stretch.

ISO gel kote (766 Series) can be used as the back up color. Lower cost, good blister resistance, and more flexibility (less stress cracking) are several advantages to using an ISO gel kote back up.

CURE:

It is recommended that gel time be checked in the customer's plant because age, temperature, humidity, and catalyst will produce varies gel times. All data referencing gel or cure refers specifically to Lupersol DDM-9 catalyst. Recommended catalyst to be used: Lupersol DDM-9 and CADOX L-50 are suitable alternates. Witco HP-90 and Lupersol DHD-9 can also be used, but they may give slightly shorter gel and cure times.

The catalyst level should not exceed 3.0% or fall below 1.2% for proper cure. Recommended range is 1.2% to 3.0% with 1.8% at 77° F being ideal. Normally, the gel kote film is ready for lamination at 45 - 60 minutes. This time element is dependent on material temperature, room temperature, humidity, air movement, and catalyst concentration.

This product should not be used when temperature conditions are below 60° F, as cure may be adversely affected.

CAUTION:

Silver Series Gel Kotes are not compatible in the liquid state with ISO or ISO/NPG Gel Kotes or resins. Spray and pumping equipment must be completely clean of these gel kotes or resins before this gel kote can be used.

It is important that only clears designated as marine or metalflake should be used. "Marble" clears are more rigid, and the light stabilization system is not adequate for metalflake applications.

Do not overmix gel kotes. Overmixing breaks down gel kote viscosity, increasing tendencies to sag, and causes styrene loss, which could contribute to porosity. Gel Kotes should be mixed once a day for 10 minutes. The gel kote should be mixing to the sides and

bottom of the container with the least amount of turbulence possible. Air bubbling should not be used for mixing. It is not effective and only serves as a potential for water or oil contamination.

Do not add any material, other than a recommended Methyl Ethyl Ketone Peroxide, to this product without the advice of a representative of Mini-Craft of Florida, Inc.

STORAGE LIMITATIONS:

Uncatalyzed 761C30201 has a usage life of three months from date of manufacture when stored at 73° F or below, in a closed, factory sealed, opaque container, and out of direct sunlight. The usage life is cut for every 20° F over 73° F. Totes of product can have even shorter usage life - 66% of that for drums.