

Product Application Sheet



HKR114 – 2K White Water Base Topcoat – 20 Sheen

General Information - Water Base Coatings

Milesi Water Base systems are the best choice for low VOC applications.

Water base finishes are more sensitive to environmental conditions than solvent base finishes. They are not necessarily more difficult to apply; it's just that they follow a few different rules.

- Dry times will be slower in high humidity situations or an excessive amount of coating is applied. Light coats dry faster.
- Heavy coats can also result in water becoming trapped in the coating and can create cloudiness on dark stained surfaces.
- Stir material very well – especially pigmented finishes. This helps re-emulsify the water with the resins and pigments.
- Pigmented finishes will sometimes crater if not stirred well
- Agitators are highly recommended when using a pigmented finish in a pressure pot or with an air assisted airless system. Run agitators slowly to avoid whipping air into the finish
- Excessive mixing or shaking may entrap air into the coating resulting in bubbles in the finish.

General Information - Water Base Topcoats

Topcoats are what add the final performance characteristics and sheen to the system. Film build is achieved through the application of basecoats. Multiple topcoats do not necessarily increase performance

More than 1 coat of sealer may be used, but most Milesi Water Base systems require only 1 topcoat. The exception is the HGA10 – 80 sheen topcoat that can be buffed. If you are going to buff the HGA10, then 2 topcoats should be applied wet on wet.

- Self-sealing products do not require the use of a sealer.
- Always use a 2K sealer or primer under 2K topcoats
- Topcoats may not develop their final sheen for 1 – 2 days after application.

General Information – Water Base Catalysts

- Most Catalysts have about a 1 year shelf life. This is valid if the can is sealed. If the can is open and moisture gets in, the shelf life will be reduced.
- The HNB1 Water Base Catalyst that may be used in: HGA19 Clear Natural Look, HBR1 White Primer and HKR114 White Pigmented Converter.
- *The HNB1 Water Base Catalyst must always be mechanically mixed into the resin. A paddle mixer on a cordless drill works well.*
- Most other Water Base products use the HNB40 Water Base Catalyst that does not require mechanical agitation while adding.
- Pot life decreases as temperatures increase.

General Information – Reducing Water Base Coatings

Milesi Water Base Products are designed to be thinned using only water – at a maximum of 5%. Many of these products appear to be very thick. Avoid the temptation to use more than 5% water when reducing. Over-reduction will greatly affect the properties of the product. This can result in runs, cratering and low film build. A proper sized needle/nozzle combination will eliminate the need for over-reduction.

RECOMMENDED APPLICATION: Pigmented Water Base Primers and Topcoats			
	Tip sizes	Atomization pressure	Product pressure
Conventional air spray	2.1 - 2.5 0.086 – 0.098	-	30-40 psi
Airless spray	0.009 – 0.011	-	1800 – 2100 psi
Air assisted spray	0.009 – 0.011	15 – 20 psi	600 – 900 psi

Tinting Milesi Water Base Pigmented Topcoats

- The pigment inside the HMT bases has been selected to obtain high chemical and physical resistances and stability in the course of time and they are compliant with the European Standards.
- To obtain pastel colors use white converters with the addition of HMT 100-900 pastes in a mixing ratio up to 100/15
- For dark colors, use neutral converters with the addition of HMT 100-900 pastes in a mixing ratio up to 90/10
- To improve the reproducibility of the formulations tinted with the Milesi Kromosystem, we recommend not using old or expired products because the colorimetric output could be change in the course of time.

HKR114 White Water Base Topcoat – 20 Sheen

Topcoat Application

- **HKR114** White Water Base Topcoat – 20 Sheen
- Catalyze 10% by weight or volume with HNB1 catalyst
- *The HNB1 Water Base Catalyst must always be mechanically mixed into the resin. A paddle mixer on a cordless drill works well.*
- Reduce 5% by weight (maximum) with water – viscosity drops quickly.
- Reducer is always measured as a percentage of the Part A resin only
- Potlife is 2 hours– less at high temperatures
- Apply 4-5 wet mils
- Shelf Life: 12 months after production.
- NOTE: The use of the HNB1 Catalyst may result in a slightly higher sheen
- Topcoats may not develop their final sheen for 1 to 2 days after application.

Recoat

- If additional build is required recoat with the **HKR114** White Water Base Topcoat – 20 Sheen
- For wet on wet application: Wait 1- 3 hours maximum. Apply next coat wet on wet – no sanding between coats.
- This is very important because it allows for a chemical burn in between the 2 coats.
- If you miss this recoat window wait at least 8 hours and then sand with 320 grit silicon carbide sandpaper and recoat following the above mixing and drying procedures.

Dry Times

Minimum 24 hours before stacking

Clean Up

- Clean up equipment immediately after use with soap and water
- Fluid lines can be flushed with a 1:1 mixture of water and isopropyl alcohol.
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Product Code	Milesi Catalyzation Chart	Catalyst	% Catalyst		Pot Life	% Reduction	
			By Vol	By Wt		By Vol	By Wt
HKR114	White Water Base Topcoats	HNB1	12	10	2 Hr	5	5

If using equipment for both solvent and water base products:

- When switching from solvent to water, flush sprayguns with water before using.
- When switching from water to solvent, flush with denatured alcohol or acetone after cleaning with water. This will attract any water left in the system. Then flush with the appropriate solvent to temper the gun.

Health and Safety

Even though these finishes are not flammable air quality is still an issue. Spray finishing produces mists and these can clog or irritate the lungs. Always wear personal protection.

- Always apply finishes in a properly ventilated spray booth.
- Use of a properly fitted respirator with a fresh organic vapor cartridge is recommended. A full face mask is best.
- Wear safety glasses or goggles if you don't have a full face mask.
- Wear a dust mask while sanding these finishes.

ADDITIONAL WATER BASE INFORMATION

- Water Base products should never be allowed to freeze
- Water Base products that have exceeded their shelf life will become extremely thick – more than normal. Do not use or try to over-reduce. Dispose of product in the proper manner.
- Make sure resins are stirred thoroughly, especially low sheen resins. Failure to do so will affect the gloss of the finished product.
- Excessive mixing or shaking may entrap air into the coating resulting in bubbles in the finish.
- HNB1 catalyst must always be mechanically mixed into the resin. A paddle mixer on a cordless drill works well.
- Always be sure to use the product with the appropriate and recommended hardener
- Accurately measure resins and catalysts.
- Only use water to reduce viscosity.
- Observe pot life times and recoat windows.
- Pot life decreases as temperatures rise.
- Product viscosity increases as pot life expires.
- Always keep catalyst and resin cans closed when not in use.
- Pot-life is stated at 68°F, we recommend to use the prepared quantitative before 1h, to obtain best results of sheen and flow out.
- Ammonia cleaners should not be used for cleaning the finished surface. This may cause discoloration.

For best results, the optimum conditions for application are:

- Ambient temperature between 18 and 22°C (64 - 72 °F)
- Ambient relative humidity between 65 and 70%
- Substrate moisture content between 8 and 14%

The conditions to be followed scrupulously are:

- Water base products should be stored indoors at temperatures not below 0 °C / 32°F or above 35 °C /95°F, in a properly ventilated place, not exposed to sunlight
- Always agitate well the products and other components such as catalysts, accelerators and thinners before and after blending
- Application must not take place at a temperature lower than 15 °C / 59°F or above 30°C / 86°F
- Drying should not take place at a temperature below 15 °C / 59°F
- Once the product has flashed off air movement will facilitate drying.
- Ambient relative humidity during drying should be between 50% and 70%

It is the user's responsibility:

- Adhere to the conditions indicated above
- Comply with the rules of hygiene and safety during product application, according to the descriptions given in the safety data sheets

Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used



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