



**HIGH PERFORMANCE
INDUSTRIAL
WATER BASE
WOOD COATINGS**

**IC&S
P.O. BOX 10845
LANCASTER, PA 17605
800-220-4035**

**ILVA
IVM CHEMICALS, srl
INTERNATIONAL WOOD COATINGS DIV
PARONA, ITALY**

ILVA TECHNICAL DATA SHEET

PRODUCT CODE: HMM5A Series

DESCRIPTION: WB CLEAR SELF-SEALER VARIOUS SHEENS

USES: Furniture, architectural millwork, store fixtures. Offers the best in dry times and leveling, with very good sanding properties and filling power.

PRODUCT PREPARATION: HMM5A Series WB Clear Self-Sealer 100 parts by weight 128 parts by volume
Water Thinner 0-5 parts by weight 0-6 parts by volume

APPLICATION SYSTEM: Spray

FILM THICKNESS: 4.4-5.6 mils wet

COATS: Two

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.040 +/- 0.02
Viscosity -- Iso 6 cup 85+/- 5 secs
Solids by Weight, %, as supplied 33 +/- 2 sec
Thinner Water
Dilution 0-5%

DRYING TIME: All dry times are dependent upon air flow, ambient temperatures, and humidity
(at 20°C/68°F) Drying time at room temperature 2-3 hr
Drying time with warm air tunnel 20-30 mins
Dust Free/time gel 30-60 mins
Dry to Touch 2-3 hr
Dry hard 6-8 hr
Stackable overnight
Sandable after 2-3 hrs, before applying topcoat

GLOSS LEVELS: HMM5A036 10 SHEEN
HMM5A054 20 SHEEN
HMM5A053 30 SHEEN
HMM5A03D 60 SHEEN

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18-25°C/64-75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 1-15, 3-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: HMM5A457

DESCRIPTION: WB CLEAR NATURAL EFFECT PARQUET SELF-SEALER

USES: Designed to be used as a 2-component self-sealer urethane ultra matte finish for flooring. May be applied by spray/roller/brush. Fast drying with soft natural effect feel. Very good wear resistance. May also be used as a 2-component system for table and desk tops.

PRODUCT PREPARATION: HMM5A457 W/B Clear Natural Effect Self-Sealer 100 parts by weight
 TXW08 or HXS5A16 Hardener 5 parts by weight (mechanical mixing required)
 Water Thinner as needed (if necessary for application)

APPLICATION SYSTEM: Airmix spray: 3.4-4.2 wet mills min-max
 Hand spray: 3.4-4.6 wet mills min-max
 Brush: 2.3-3.0 wet mills min-max
 Manual roller 2.3-3.0 wet mills min-max
 Spray - see pg 26 for additional information

COATS: Two

GENERAL PROPERTIES: Specific Gravity, gr/ml 1.032 +/- 0.030
 Viscosity* (ISO 6) 24 sec +/- 2
 Solids Content (% by weight) 21.1 +/- 2
 Pot Life using PU Hardener 2 hours

DRYING TIME: (at 20°C/68°F) Drying schedule at room temperature (64-72°F, 65-70% relative humidity), completely drying: 96 hours
 Dust Free 50 minutes
 Dry to Touch 75 minutes
 Hard dry 5 hours
 Sandable after 4 hours
 Maximum time between layers without sanding 2-3 hours
 Overcoatability time 8 hours
 Overcoatability time between layers 4-8 hours
 Jet hot air drying Temp: 35°C, 95°F
 Stackable after jet hot air drying 4 hours with spacers
 Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS: Substrate: Walnut/oak/beech/maple
 Stain: PF5 Series
 Sealer HMM5A457 (80 g/m2)
 Topcoat: HMM5A457 - topcoat 5 sheen (80g/m2)
 TXW08 or HXS5A16 must use 5% in both sealer and topcoat

RECOMMENDATIONS: Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.
 We recommend using stainless steel for all water-based products. If using both solvent and water-based products we suggest the following:
 ---from water to solvent: wash with water, then wash with solvent
 from solvent to water, reverse the cycle. If you find it necessary to dilute the material we suggest using de-ionized water in order to avoid problems which may arise from a high concentration of salts.
 Keep cans closed when not in use and wash all equipment well. Keep from freezing. Do not thin more than 5%.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 06-16, Revised 9-16, 4-17, 3-18

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE:	HMMB05x Series		
DESCRIPTION:	Waterbase Multilayer Floor Finish		
USES:	Multilayer for parquets and stairs, open and close pore.		
FEATURES:	Excellent elasticity and floor surface resistance.		
PRODUCT PREPARATION:	HMMB05x	Waterbase Multilayer Floor Finish	100 parts
APPLICATION SYSTEM:	Brush or roller		
FILM THICKNESS:	2.8 - 4.58 mils wet		
COATS:	Two		
GENERAL PROPERTIES:	Specific Gravity, gr/cc	1.045 +/- 0.01	
	Viscosity*	18 +/- 2 sec	
	Solids by Weight, % as supplied	30 +/- 2	
	*Ford Cup #4		
GLOSS AVAILABLE:	HMMB052 50 Gloss (Old Code TW632) HMMB054 20 Gloss (Old Code TW634)		
DRYING TIME: (at 20°C/68°F)	Dry to touch	1 hour	
	Dry hard	12 hours	
	Drying schedule by oven 25-60°C	1 hour	
	Walking on (minimum)	5 days	
TYPICAL SYSTEMS:	Various woods		
	Stain		
	Basecoat	HMMB05X	1 coat (interval between coats without sanding: 1-3 h)
	Topcoat	HMMB05X	1 coat
RECOMMENDATIONS:	We recommend using this product at temperatures above 15°C (60°F) and <70% humidity. Do not exceed 180 gr/cc per coat. When dilution is necessary we recommend using de-ionized water in order to avoid problems associated with a high concentration of salts. Do not exceed 10% dilution. Wash all equipemnt thoroughly before and after use.		
SHELF LIFE:	12 Months		
STORAGE:	Store in a tightly closed container at room temperatures (18-25°C/64-75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)		
DATE OF ISSUANCE:	12-16, 4-17		

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: HNS7A04

DESCRIPTION: Interior WB Gel Stain Base

USES: To be tinted with PZ5xx at 2-5%. Apply to achieve a consistent uniform color of the wood, especially recommended when harmonizing of the wood is necessary, such as finger joint wood. May be used on hard or soft woods. Good vertical hang.

APPLICATION SYSTEM: Brush, Spray, or Lambs wool pad, then wipe

FILM THICKNESS: 300-400 Sq feet per gallon @1.6-2.3 mils wet

COATS: One

GENERAL PROPERTIES:

Specific Gravity, gr/cc	1.010+/-0.03
Viscosity as supplied Brookfield	1300+/-500 cps, spindle 2, speed 5
Solids, % by weight:	10+/-2
Thinner:	Water
% of dilution:	0-5%

DRYING TIME: At 20°C with ventilation, dry to handle:
(at 20°C/68°F)

Dust Free:	20 minutes
Dry to touch:	2 hours
Full dried:	4 hours

(Drying times may vary according to temperature, ventilation and relative humidity)

WARNINGS: KEEP FROM FREEZING

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 2-18

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: IWS1303

DESCRIPTION: Waterbase Spray Stain Binder

USES: Use for doors, furniture and manufactured goods. Fast drying.

APPLICATION SYSTEM: Spray

PRODUCT PREPARATION: Spray application
IWS1303 Binder 90+ parts
PF5, PC3, PZ5 Colors 0-10 parts

FILM THICKNESS: 1.2-1.6 mils wet

COATS: One

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.00 +/- 0.01
Viscosity* 12 sec +/-1

* CF4 at 20°C/68°F

DRYING TIME: Handling: 30-40 minutes
(at 20°C/68°F)

TYPICAL SYSTEMS: Substrate: Various woods
Stain vehicle: IWS1303
Drying: 30-40 minutes
TTx series P/U WB Basecoats or TA series P/U Solvent Basecoats
TW34 series P/U WB Topcoats or TO9 series P/U Solvent Topcoats

NOTES: We advise removal of excess stain so adhesion of the next coat will not be effected. The vehicle provides excellent workability to stain color bases.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 03-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PC 3/Series

DESCRIPTION: Water Based Dye Stain for Spray or Dip

USES: Staining of furniture, frames, panels.

PRODUCT PREPARATION: Spray application

PC 3/ series	Stain	7-10 parts by weight
Water		80-90 parts by weight
PD4/90	Vehicle	5 parts by weight

Dipping application

PC 3/ series	Stain	7-10 parts by weight
Water		40-50 parts by weight
PF95	Vehicle	40-50 parts by weight

Spray and Wipe application

PC 3/ series	Stain	7-10 parts by weight
Water		60-80 parts by weight
PD4/90	Vehicle	15-30 parts by weight

GENERAL PROPERTIES: Dry content and Specific Gravity, gr/cc see below
 Viscosity DIN 53211 NR4 at 20°C/68°F 10+/-2 sec
 Dry time at 20°C/68°F 4-24 h

AVAILABLE COLORS:	<u>Specific gravity</u> (gr/ml +/-2)	<u>Solid content</u> (by weight +/-2)	<u>Viscosity</u>
PC30 White	1.200	27%	70 +/-5 (ISO3)
PC31 Yellow	1.020	7%	24 +/-2 (ISO3)
PC34 Orange	1.030	6.5%	10 +/-2 (DIN 4)
PC37 Red	1.020	7%	26 +/-2 (ISO 3)
PC36 Brown	1.030	13%	26 +/-2 (ISO 3)
PC38 Blue	1.000	5%	20 +/-2 (DIN 4)
PC39 Black	1.020	10%	25 +/-2 (ISO 3)

TYPICAL SYSTEMS: SYSTEM NR 1
 Barrier Coat: PC3/Series Stain
 Sealer: TT06 Aquatech Sealer or TA48 Solvent Polyurethane Sealer
 Finish: TW3/xxSeries - Waterbase PU Topcoat or TO9/series Solvent PU Topcoat

REMARKS: Increasing the vehicle percentage will improve uniformity, less penetration so consequently greater covering power, and the grain is more enhanced. A wide variety of colors can be achieved by mixing the base colors.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10, Revised 10-10, 2-18

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PD4/90

DESCRIPTION: WB GLAZE & STAIN VEHICLE

USES: Vehicle for glazes by spray and wipe. Suitable for chestnut, oak, etc. woods. Excellent smoothing action. Can be used on various types of furniture.

APPLICATION SYSTEM: By spray and wipe

GENERAL PROPERTIES:

Specific gravity:	1.05 +/-0.02 gr/m;
Solid content:	25% +/- 1% by weight
Viscosity (at 20°C):	55 +/-5 (DIN 53211 CUP 0 mm.4)

DRYING TIME: Air (minnum 4 hours)
(at 20°C/68°F)

SUGGESTED COATING CYCLES:

Substrate:	Different kinds of wood
Stain:	PD4/90 + PC3/series + water = 100/10/50
Drying:	4 hr
Base coat:	TT PUR WB base coats
Topcoat:	TW PUR WB topcoats

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18-25°C/64-75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PD 6xx/Series

DESCRIPTION: Pigmented Water Stains

USES: Staining of furniture, frames, panels. Can be used by spray, dip and roller. Excellent balance between uniformity and transparency making it possible to obtain different colors, hiding power and nuances. Excellent resistance to daylight.

CHEMICAL/PHYSICAL PROPERTIES:	<u>Specific gravity(at 20°C)</u> (+/- .05)	<u>Solid content (M.U. 591)</u> (by weight +/-1)	<u>Viscosity (ISO 3 at 20°C)</u>
AVAILABLE COLORS:			
	PD601 White	1.15	24%
	PD602 Yellow vivid	1.1	24%
	PD603 Yellow Oxide	1.19	45%
	PD604 Yellow Solid	1.08	31%
	PD605 Red	1.08	29%
	PD606 Orange	1.60	23%
	PD607 Green	1.15	52%
	PD608 Blue	1.12	23%
	PD609 Black	1.12	22%
	PD611 White (dipping)	1.11	20%
			70 +/-5
			30 +/-3
			30 +/-2
			28 +/-3
			28 +/-3
			31 +/-3
			27 +/-3
			31 +/-3
			27 +/-3
			27 +/-3

APPLICATION SYSTEM: Spray, roller, or dip

FILM THICKNESS: Max total: spray & wipe: 0.8-1.6 mils wet; spray manual: 0.4-0.8 mils wet

DRYING TIME: Drying schedule at room temperature: 4 - 24 hr
Drying time hot air tunnel (25 - 60°C): 1 hr.
Drying time IR/percussion: 3 min

RECOMMENDED COATING

SCHEDULES: Substrate: Ash, maple, pine
Stain: PD6xx/series
Basecoat: TTxx Water Base Sealer
Topcoat: TW34xx Water Base Finishes

PRODUCT PREPARATION: Dipping application

PD 6/ series	Stain	1-5 parts by weight
Water		40-50 parts by weight
PF95	Vehicle	40-50 parts by weight

Spray and Wipe application

PD 6/ series	Stain	1-5 parts by weight
Water		70-80 parts by weight
PD4/90	Vehicle	20-25 parts by weight

REMARKS: It is best to use waterbase sealer to limit the possibility of color bleed. For dipping application of white use special product code PD611. It is formulated ready to use by dipping.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18-25°C/64-75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10, Revised 10-10

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ILVA TECHNICAL DATA SHEET

PRODUCT SERIES: ILVATINT

PRODUCT CODE: PF 5/Series

DESCRIPTION: Universal Stains

USES: Staining of furniture, frames, panels. Can be used by spray and roller, and diluted with solvent or water. Product should not be used without dilution.

PRODUCT PREPARATION: Spray application (water system)

Water		50-100 parts by weight
PF95	Vehicle	Add 10% - 40% to above mixture
PF 5/ series	Stain	10 parts by weight

Wipe Application (water system)

Water		50-100 parts by weight
PD4/90	Vehicle	Add 10% - 40% to above mixture
PF 5/ series	Stain	10 parts by weight

If you are using the Vehicles, you must add them to the water and stir before adding the PF5 stains. Addition of TZ08 will slow down the dry time for better wetting and wiping.

When spraying waterbase onto maple wood, the addition of AL 1000 Denatured Alcohol at 10% will help to limit blotching effect.

FILM THICKNESS: 2-2.4 wet mils

COATS: One

GENERAL PROPERTIES: Specific Gravity, gr/cc 0.97 +/- 0.05
Viscosity* 10 +/- 2 sec

*ASTM D1200 (Ford) #4 at 20°C/68°F

DRYING TIME: Handling and topcoating, solvent systems 30 - 60 sec
(at 20°C/68°F) Handling and topcoating, water systems 8 hours minimum

(tunnel 60°C or IR oven): Handling and topcoating, solvent systems 10 sec
Handling and topcoating, water systems 20 minutes minimum

AVAILABLE COLORS:

PF50* White	PF51 Yellow	PF54 Orange
PF55 Red	PF57 Violet	PF58 Blue
PF59 Black	PF 5V Green	PF5B White for water-based systems
PF5T05 Medium walnut	PF5T07 Dark walnut	PF5T06 Mahogany
PF5T01 Honey	PF5T02 Cherry	PF5T08 Rosewood
PF5K18* Wenge	PF5WB18 Water Reducible Wenge	

***PF50 & PF5K18 can be used only in solvent, not in water**

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 03 - 97 Latest Revision 5-13, 9-16

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PF95

DESCRIPTION: Vehicle for Waterbase Stain

USES: Use as a vehicle for water base stain on cabinets, furniture, and chairs. Fast drying.

APPLICATION SYSTEM: Dip and spray

PRODUCT PREPARATION: Spray application

Water		100 parts by weight
PF95	Vehicle	10%-50% to water
PF5	Stain	1%-10%

Dip Application

Water		100 parts by weight
PF95	Vehicle	50%-100% to water
PC3 series*	Stain/colorant	7%-10%

*PF5 and PZ5 colors can be used in very small amounts

If using the PF95 vehicle you must add it to the water first and then stir in the PF5 stains. Addition of TZ88 or PX0/03 will slow down the dry time for better wetting and wiping.

Increasing the vehicle percentage, in both cases, can cause both positive and negative effects:

- more uniform penetration
- less sagging
- greater coverage
- the grain is more enhanced

A wide variety of colors can be achieved by mixing the base colors in any of the three systems: PC3, or PF5, PZ5 series colorants (see note above for the PF5 and PZ5 colorants in dip applications)

FILM THICKNESS: 2-2.4 wet mils

COATS: One

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.02 +/- 0.03
Viscosity* 12 sec +/-1

* DIN53211 #4 at 20°C/68°F

DRYING TIME: Handling: 2 - 4 hours
(at 20°C/68°F)

TYPICAL SYSTEMS: Substrate: Various woods
Stain vehicle: PF95
Drying: 2 - 4 hours
TTx series P/U WB Basecoats or TA series P/U Solvent Basecoats
TW34 series P/U WB Topcoats or TO9 series P/U Solvent Topcoats

NOTES: We advise removal of excess stain so adhesion of the next coat will not be effected. The vehicle provides excellent workability to stain color bases.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 03-17, 2-18

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PT410

DESCRIPTION: WHITE AQUATECH SEALER

USES: Horizontal and vertical surfaces, such as furniture, kitchen cabinets, interior doors. Excellent hiding power, sandability, and leveling.

PRODUCT PREPARATION: PT 410 White Aquatech Sealer 100 parts
 Water Thinner 0-10 %
 This product may be used without the addition of any crosslinker or hardener. The addition of TXW02 Crosslinker at 1% will slightly improve resistance properties. Best chemical resistance is achieved by adding TXW08 or HXS5A16 Hardener at 0%-10%. The more Hardener you add, the shorter the pot life, but the better the chemical resistance.

APPLICATION SYSTEM: Spray - see pg. 26 for additional information

FILM THICKNESS: 4-6 mils wet per coat

COATS: Two Or Three coats maximum

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.36 +/- 0.02
 Viscosity - Ford Cup #8 71 +/- 5 sec
 Solids by Weight, % as supplied 57 +/- 2
 Pot Life with Hardener 1 to 3 hours with HXS5A16 or TXW08

DRYING TIME: Dust Free Flash-off at 40°C (104°F) 20-40 minutes
 (at 20°C/68°F) Dry To Touch 1-3 hours
 Dry To Cure 8-12 hours
 Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS: Substrate MDF
Water-Based 2K Topcoat
 PT410 Basecoat
 2 or 3 coats maximum
 PW710 White 2K Poly Water 1 or 2 coats maximum
 Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.

RECOMMENDATIONS: We recommend using this product at temperatures above 15°C (60°F) and <70% humidity. Do not use steel wool for sanding the raw wood since residual metal dust can cause rust spots. Wood can vary in color and absorption qualities, thereby producing different results in color of stain and finish coat. For touch-up and re-coating, it is advisable to use the same type of coatings as used on the first application. Drying times on all water-based coatings are increased by wood that has poor absorption characteristics and by cold, wet weather. It is always advisable to effect short tests with these products to verify that the results obtained meet your particular requirements.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PW710/Series

DESCRIPTION: WBWHITE 2K POLY TOPOAT

USES: Kitchen Cabinets (must use PU Hardener), Panels, Furniture. If used as a base for making pastel colors use PZ5xx series colorants and do not exceed 30% of pigmented paste.

PRODUCTION PREPARATION: PW710 W/B White 2K Polyurethane 100 parts by weight
TXW08 Waterbase Hardener for PU 0-10 parts by weight
Water Thinner 5-10 parts by weight (if necessary for application)
This product may be used without the addition of any crosslinker or hardener. The addition of TXW02 Crosslinker at 1% will slightly improve resistance properties. Best chemical resistance is achieved by adding TXW08 or HXS5A16 Hardener at 0%-10%. The more Hardener you add, the shorter the pot life, but the better the chemical resistance.

APPLICATION SYSTEM: Spray - see pg 26 for additional information

FILM THICKNESS: 4-6 wet mils per coat

COATS: One or Two Maximum

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.20 +/-0.02
Viscosity using Ford Cup #6 40 +/- 5 sec
Solids by Weight, % as supplied (I component) 44 +/- 2
Solids by Weight, % as supplied (II component) 70%
Pot Life using PU Hardener 1-3 hours

DRYING TIME: Dust Free Flash-off at 40°C (104°F) 20-40 minutes
(at 20°C/68°F) Dry To Touch 1-3 hours
Dry To Cure 8-12 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

GLOSS AVAILABLE: PW710/20 20 sheen
PW710/10 10 sheen
PW710/30 30 sheen
PW710/60 60 sheen

TYPICAL SYSTEMS: Substrate: Various woods
PT410 White Aquatech Sealer
Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.

RECOMMENDATIONS: We recommend using stainless steel for all water-based products. If using both solvent and water-based products we suggest the following:
---from water to solvent: wash with water, then wash with solvent
from solvent to water, reverse the cyle.
Keep cans closed when not in use and wash all equipment well. Keep from freezing.
Preparation note: to have a good mix between 1st and 2nd component you must follow this procedure: weigh and prepare separately the quantity of 2nd componenet necessary to mix; pour out slowly 2nd component into 1st component as 1st component is be continually mixed; add water only when 2nd component is completely mixed.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10, Revised 2-12, 3-12, 5-12, 11-12, 8-14, 3-15, 9-16, 4-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: PZ5.../COLOR SERIES

DESCRIPTION: WATER BASE PIGMENTED TINT PASTE

USES: Tinting colors for Water-Based Products. In general they may be used in all waterbase systems at a level of 15% maximum with no effect on film properties, only gloss levels at the maximum level of tint paste. If you mix with TW34x series more than 15% to make a deep tone color, you will raise the gloss level.

AVAILABLE COLORS: These colorants may also be used with the Klima Outdoor products. If you mix with the TN931/00 Clear or TN931 Wood Tone to make a solid color, the maximum you can add is up to 10%.

PZ520	White
PZ521	Vivid Yellow
PZ531	Lemon Yellow
PZ522	Gold Yellow
PZ523	Yellow Oxide
PZ561	Yellow
PZ564	Orange
PZ537	Green
PZ534	Vivid Red
PZ525	Wisteria Red
PZ535	Red
PZ526	Red Oxide
PZ534/C	Concentrate Red
PZ527	Bordeaux
PZ547	Violet
PZ528	Blue
PZ529	Deep Black
PZ539	Black

CHEMICAL/PHYSICAL PROPERTIES:

CODE	Density (Kg/l)	Density (lb/US gal)	Solid content %
PZ520	2.100 +/- 0.030	17.5 +/- 0.3	77.7 +/- 2
PZ521	1.126 +/- 0.030	9.4 +/- 0.3	47.6 +/- 2
PZ531	1.857 +/- 0.030	15.5 +/- 0.3	68.6 +/- 2
PZ522	1.181 +/- 0.030	9.9 +/- 0.3	49.3 +/- 2
PZ523	1.611 +/- 0.030	13.4 +/- 0.3	54.6 +/- 2
PZ561	1.134 +/- 0.030	9.5 +/- 0.3	48.4 +/- 2
PZ564	1.165 +/- 0.030	9.7 +/- 0.3	43.2 +/- 2
PZ537	1.221 +/- 0.030	10.2 +/- 0.3	46.4 +/- 2
PZ534	1.119 +/- 0.030	9.3 +/- 0.3	39.2 +/- 2
PZ525	1.085 +/- 0.030	9.1 +/- 0.3	35.0 +/- 2
PZ535	1.111 +/- 0.030	9.3 +/- 0.3	39.4 +/- 2
PZ526	1.673 +/- 0.030	14.0 +/- 0.3	56.2 +/- 2
PZ534/C	1.180 +/- 0.030	9.8 +/- 0.3	54.0 +/- 2
PZ527	1.174 +/- 0.030	9.8 +/- 0.3	54.0 +/- 2
PZ547	1.100 +/- 0.030	9.2 +/- 0.3	38.3 +/- 2
PZ528	1.071 +/- 0.030	8.9 +/- 0.3	32.3 +/- 2
PZ529	1.133 +/- 0.030	9.5 +/- 0.3	44.5 +/- 2
PZ539	1.100 +/- 0.030	9.2 +/- 0.3	39.0 +/- 2

USAGE INDICATIONS: Mechanically shake every single paste before use. It is advisable to add pastes under mechanical mixing. Quantities must be weighed with high precision balances.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F).

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: TT06

DESCRIPTION: WB CLEAR 2K POLY SEALER

USES: Horizontal and vertical surfaces, furniture, kitchen cabinets, panels. This product provides maximum chemical resistance.

PRODUCT PREPARATION: TT06 W/B Clear 2K P/U Sealer 100 parts by weight
TXW08 or HXS5A16 Hardener 5-10%
Water Thinner 0-5 parts by weight (if necessary for application)

APPLICATION SYSTEM: Spray - see pg 26 for additional information

FILM THICKNESS: 4-6 mils wet per coat)

COATS: One or Two maximum

GENERAL PROPERTIES: Specific Gravity, gr/cc, part A 1.030 +/- 0.01
Specific Gravity, gr/cc, part B 1.170 +/- 0.01
Viscosity - Part A - Ford Cup #6 46 +/- 2 sec
Solids by Weight, %, as supplied (I component) 34 +/- 2
Solids by Weight, % as supplied (II component) 80%
Solids by Weight, % Catalyzed Product 38 +/- 2
Pot Life 1 - 3 hours

DRYING TIME: Dust Free Flash-off at 40°C (104°F) 20-40 minutes
(at 20°C/68°F) Dry To Touch 1-2 hours
Dry To Cure 6-8 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS: Substrate: Various woods
PD6xx Waterbase Stain or PF5x Series Stains
TT06 W/B Clear 2K P/U Sealer
TW34/series W/B Clear 2K P/U Topcoat
Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.

RECOMMENDATIONS: We recommend using stainless steel for all water-based products. If using both solvent and water-based products we suggest the following:
---from water to solvent: wash with water, then wash with solvent
from solvent to water, reverse the cycle.
Keep cans closed when not in use and wash all equipment well. Keep from freezing.
Preparation note: to have a good mix between 1st and 2nd component you must follow this procedure: weigh and prepare separately the quantity of 2nd component necessary to mix; pour out slowly 2nd component into 1st component as 1st component is continually mixed; add water only when 2nd component is completely mixed.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25 °C/64 -75 °F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F).

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: TT276

DESCRIPTION: WB CLEAR SANDING SEALER

USES: General Purpose Wood Sealer for horizontal and vertical surfaces. Fast dry & good sanding.

PRODUCT PREPARATION: TT276 W/B Clear Sanding Sealer 100 parts by weight
Water Thinner 5-10 parts by weight (if necessary for application)
This product may be used without the addition of any crosslinker or hardener. The addition of TXW02 Crosslinker at 1% will slightly improve resistance properties. Best chemical resistance is achieved by adding TXW08 or HXS5A16 Hardener at 1%-10%. The more Hardener you add, the shorter the pot life, but better the chemical resistance.

APPLICATION SYSTEM: Spray - see pg 26 for additional information

FILM THICKNESS: 4-6 mills wet per coat

COATS: One or two

GENERAL PROPERTIES:

Specific Gravity, gr/cc, part A	1.030 +/- 0.01
Specific Gravity, gr/cc, part B	1.075 +/- 0.01
Viscosity* Part A - Ford Cup #6	40 +/- 2 sec
Solids by Weight, %, as supplied (Part A)	33 +/- 2
Solids by Weight, % as supplied (Part B)	70 +/- 2
Pot Life using PU Hardener	1 - 3 hours

DRYING TIME: Dust Free Flash-off 20-40 minutes
(at 20°C/68°F) Dry To Cure 6-8 hours
Dry To Cure by warm air tunnel (25-40C) 2 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS: Substrate: Various woods
PD6 W/B Stain
TT276 W/B Clear Sanding Sealer One or two coats
TW34/series W/B Clear 2K P/U Topcoat
Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.

RECOMMENDATIONS: We recommend using stainless steel for all water-based products. If using both solvent and water-based products we suggest the following:
---from water to solvent: wash with water, then wash with solvent
from solvent to water, reverse the cycle. If you find it necessary to dilute the material we suggest using de-ionized water in order to avoid problems which may arise from a high concentration of salts.
Keep cans closed when not in use and wash all equipment well. Keep from freezing. Do not thin more than 10%.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18-25°C/64-75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: TW18

DESCRIPTION: WB CLEAR NATURAL EFFECT SELF SEAL

USES: Flat panels and kitchen doors. Fast drying, very good pore design, transparency and soft natural feel. To be used as a self-sealer with or without hardener. Hardener increases the chemical resistance properties.

PRODUCT PREPARATION: TW18 W/B Clear Natural Effect Self-Sealer 100 parts by weight
TXW08 Hardener 5 parts by weight
Water Thinner as needed (if necessary for application)

APPLICATION SYSTEM: Spray - see pg 26 for additional information

FILM THICKNESS: 2.5 - 4 wet mils

COATS: One or two

GENERAL PROPERTIES: Specific Gravity, gr/ml 1.011 +/- 0.02
Viscosity* (ISO 6) 70 - 75 sec
Solids by Weight, %, as supplied (Part A) 17 +/- 2
Solids by Weight, % as supplied (Part B) 80 +/- 2
Pot Life using PU Hardener 5 - 6 hours

DRYING TIME: (at 20°C/68°F) Drying schedule at room temperature 1 - 3 hours
Dry To Cure by warm air tunnel (25-40C) 90 minutes
Sandable after 4 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS: Substrate: Walnut/oak/multi-laminar woods
Stain: PF5 Series
Sealer TW18 (3-4 wet mils)
Topcoat: TW18 - topcoat 5 sheen (3-4 wet mils)
TXW08 - 5%

RECOMMENDATIONS: Sand using 280-320 grit stearate paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the waterbased product and loading up sandpaper.

We recommend using stainless steel for all water-based products. If using both solvent and water-based products we suggest the following:

---from water to solvent: wash with water, then wash with solvent
from solvent to water, reverse the cycle. If you find it necessary to dilute the material we suggest using de-ionized water in order to avoid problems which may arise from a high concentration of salts. Keep cans closed when not in use and wash all equipment well. Keep from freezing. Do not thin more than 10%.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10, Revised 9-11, 5-12, 11-12, 4-17, 6-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: TW34 Series

DESCRIPTION: WB CLEAR 2K POLY TOPCOAT

USES: Kitchen Cabinets (must use PU Hardener). Manufactured indoor products, including panels and furniture.

PRODUCT PREPARATION: TW 34series WB Clear 2K Poly Topcoat 100 parts by weight
TXW08 Waterbase Hardener for PU 0-10 parts by weight
Water Thinner 0-10 parts by weight (if necessary for application)
This product may be used without the addition of any crosslinker or hardener. The addition of TXW02 Crosslinker at 1% will slightly improve resistance properties. Best chemical resistance is achieved by adding TXW08 or HXS5A16 Hardener at 0%-10%. The more Hardener you add, the shorter the pot life, longer the dry time, but improved chemical resistance.

APPLICATION SYSTEM: Spray - see pg 26 for additional information

FILM THICKNESS: 4-6 wet mils per coat

COATS: One

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.03 +/- 0.02
Viscosity - Ford Cup #6
TW340-TW341-342-343-344-346-347 40 +/- 2 sec
Solids by Weight, % as supplied (I component) 33 +/- 2
Solids by Weight, % as supplied (II component) 70%
Pot Life using PU Hardener 2 - 3 hours

DRYING TIME: Dust Free 50 minutes
(at 20°C/68°F) Dry To Touch 60-90 minutes
Dry To Handle (with forced air dry can be reduced to 2 hrs) 5 hours
Dry To Cure to achieve ultimate resistance properties 96 hours
Please note that drying times may change with varying temperatures, ventilation, relative humidity, and type and quantity of hardener. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

GLOSS AVAILABLE: TW340 80-85 sheen
TW341 64-66 sheen TW344 19-21 sheen
TW342 48-52 sheen TW346 9-12 sheen
TW343 28-32 sheen TW347 4-6 sheen

RECOMMENDATIONS: Sand with 280- 320 paper or superfine sponges or maroon Scotchbrite between coats. May be recoated within one hour of drying without sanding. Avoid high pressure or reduce speed on powered sanding equipment to avoid overheating of the water based product and loading up sandpaper.
To guarantee an adequate incorporation of the second component please use the following procedure: weigh out the appropriate amount of the second component; add the second component to the TW34 series slowly, while using the automatic agitator; add water only when the second component has been incorporated completely. Drying times can vary with differing temperatures, ventilation and relative humidity. We recommend using stainless steel for all water-based products.
Keep cans closed when not in use and wash all equipment well. Keep from freezing.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 9-10, Revised 9-11, 5-12, 11-12, 9-16, 1-17, 4-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: TW88X

DESCRIPTION: WB SELF SEALER 2K FLOOR FINISH

USES: For parquet and stairs (open and closed pores)

PRODUCT PREPARATION: TW 88X WB Self Sealer 2K 100 parts by weight
TXW08 Waterbase Hardener 10 parts by weight
Water Thinner 0-10 parts by weight (if necessary for application)
*Pot life with TXW08: from 1-3 hours depending on dilution percentage and room temperature. For improved hardness and wear resistance use HXS5A16 (must be mechanically mixed)

APPLICATION SYSTEM: Brush or roller

FILM THICKNESS: 3-5 wet mils per coat, maximum 12 wet mils total

COATS: Three

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.000 +/- 0.02
Viscosity (Ford Cup #4) 13 +/- 2 sec
Solids by Weight, %, as supplied (I component) 28 +/- 2
Thinner Water
Dilution 0-10%, if necessary

DRYING TIME: Drying schedule at room temperature:
Dust Free 45 minutes
Dry to touch 2 hours 30 minutes
Hard Dry 12 hours
Drying time in tunnel 25-60°C 1 h
Walk on with care, in 24 hours
Time between coats without sanding 2-4 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity.

GLOSS AVAILABLE: TW882 50 sheen +/- 3
TW884 20 sheen +/- 2

TYPICAL SYSTEMS: (a) Substrate: Various woods (sand with 150 paper) (b) Substrate: Various woods (sand w/150)
Base Coat: TW88x with 10% TXW08 Primer
Dry for 12 hours - sand with 280-320 Dry for 6 hours - sand with 280-320
Base Coat: TW88x with 10% TXW08 Basecoat: TW88x with 10% TXW08
Dry for 12 hours - sand with 280-320 Dry for 8 hours sand with 280-320
Topcoat: TW88x with 10% TXW08 Basecoat: TW88x with 10% TXW08
Dry 12 hours - sand with 280-320
Topcoat: TW88x with 10% TXW08

RECOMMENDATIONS: To guarantee an adequate incorporation of the second component please use the following procedure: weigh out the appropriate amount of the second component; add the second component to the TW88 series slowly, while using the automatic agitator; add water only when the second component has been incorporated completely. Drying times can vary with differing temperatures, ventilation and relative humidity. We recommend using stainless steel for all water-based products. Keep cans closed when not in use and wash all equipment well. Keep from freezing.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 09-10, Revised 1-11, 9-16, 4-17, 2-18

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WB1343

DESCRIPTION: WB GLAZE & WIPE STAIN LOW SOLIDS BASE

USES: Vehicle for staining & glazing by spray and wipe. Suitable for all types of wood. Very little grain raising when used as a stain. It may be used as a glaze in both waterbase and solvent based polyurethane cycles.

APPLICATION SYSTEM: Spray and wipe

FILM THICKNESS: 1.6 - 2.4 wet mils

GENERAL PROPERTIES:

Specific Gravity, gr/cc	1.10 +/- 0.02
Viscosity (DIN 53211 Cup 0 - 4mm)	30 +/- 2 sec
Solids by Weight, %, as supplied	27 +/- 1%

DRYING TIME: Air Dry 2-4 hours. Moving ambient air for the best drying conditions.
(at 20°C/68°F) Please note that drying times may change with varying temperatures, ventilation and relative humidity.

SUGGESTED COATING CYCLES:

Substrate:	Different kinds of wood
Stain:	WB1343 & colors
Drying:	2 - 4 hours
Base Coat:	TTx Series P/U WB Basecoats or TA Series P/U Solvent Basecoats
Topcoat:	TW34 Series P/U WB Topcoats or TO9 Series P/U Solvent Topcoats

TYPICAL STAIN COLOR FORMULATION:

WB1343	80 parts
PD6 colors*	10 parts
Water	10 parts

*You may also use PC3 colors to obtain bright and very clear stains. PZ5xx Series Aquatech pastes may also be used at maximum 10% level.

TYPICAL GLAZE COLOR FORMULATION:

WB1343	80 parts
PZ5xx colors*	10 parts
Water	10 parts

*You may also use PD6xx stain colorants

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 03-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WBS5A15

DESCRIPTION: WHITE INTERIOR WB STAIN BLOCK SEALER

USES: Recommended for use as a tannin stain blocker. Seals tannins, knots and wood sap areas. May be used on new construction or remodeling work.

PRODUCT PREPARATION: WBS5A15 White Interior WB Stain Block Sealer 100 parts
Water Thinner 0-5%

APPLICATION SYSTEM: Airmix Spray or Hand Spray

FILM THICKNESS: 2.4 - 3.6 wet mils

COATS: Two coats maximum

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.15+/- 0.03
Viscosity (Ford Cup #6) 65 +/- 5 sec
Solids by Weight, %, as supplied 50 +/- 2

DRYING TIME: Dust Free 40 minutes
Dry to touch 60 minutes
Dry to Cure 3 hours
Stackable after room temperature drying 4 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

TYPICAL SYSTEMS:

Substrate	Pine, Poplar, MDF, Oak	
WBS5A15	White Stain Block	1 coat - no sanding
PT410	White Sealer	1 coat - apply same day as stain block
PW710 series/TXW08	White 2K Topcoat	1 coat
Substrate	Pine, Poplar, MDF, Oak	
WBS5A15	White Stain Block	1 coat, dry overnight or longer, sand
PT410	White Sealer	1 coat
PW710 series/TXW08	White 2K Topcoat	1 coat

RECOMMENDATIONS: We recommend using this product at temperatures above 15°C (60°F) and <70% humidity. Do not use steel wool for sanding the raw wood since residual metal dust can cause rust spots. Wood can vary in color and absorption qualities, thereby producing different results in color of stain and finish coat. For touch-up and re-coating, it is advisable to use the same type of coatings as used on the first application. Drying times on all water-based coatings are increased by wood that has poor absorption characteristics and by cold, wet weather. It is always advisable to effect short tests with these products to verify that the results obtained meet your particular requirements.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WBS503

DESCRIPTION: WHITE AQUATECH SEALER

USES: Furniture, doors and profiles for solid wood and MDF. Very fast dry with excellent sanding properties.

PRODUCT PREPARATION: WBS503 White Aquatech Sealer 100 parts
Water Thinner 0-5 %

APPLICATION SYSTEM: Airmix Spray or Hand Spray

FILM THICKNESS: 4.8 - 6.4 wet mils

COATS: Two coats maximum

GENERAL PROPERTIES: Specific Gravity, gr/cc 1.38 +/- 0.05
Viscosity - CF4@20°C 85 +/- 8 sec
Solids by Weight, % as supplied 59 +/- 2

DRYING TIME: Drying schedule at room temperature 2-4 hours
(at 20°C/68°F) Drying time with hot air tunnel 45 minutes
Dust Free 30 minutes
Dry To Touch 60 minutes
Dry To Cure 2-4 hours
Sandable after Minimum 2 hours
Time between layers 1-4 hours
Please note that drying times may change with varying temperatures, ventilation and relative humidity. In particular, good ventilation promotes hard dry and best dry times for handling and stacking.

RECOMMENDATIONS: We recommend using this product at temperatures above 15°C (60°F) and <70% humidity. Do not use steel wool for sanding the raw wood since residual metal dust can cause rust spots. Wood can vary in color and absorption qualities, thereby producing different results in color of stain and finish coat. For touch-up and re-coating, it is advisable to use the same type of coatings as used on the first application. Drying times on all water-based coatings are increased by wood that has poor absorption characteristics and by cold, wet weather. It is always advisable to effect short tests with these products to verify that the results obtained meet your particular requirements.

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WES5A01

DESCRIPTION: WB GLAZE & WIPE STAIN HIGH SOLIDS BASE

USES: Vehicle for staining and glazing by spray and wipe. Suitable for all types of wood. Very little grain raising when used as a stain. It may be used as a glaze in both waterbase and solvent based polyurethane cycles.

APPLICATION SYSTEM: Spray and wipe

FILM THICKNESS: 1.6 - 2.4 wet mils

GENERAL PROPERTIES:

Specific Gravity, gr/cc	1.12 +/- 0.02
Viscosity (DIN 53211 Cup 0 - 4mm)	33 +/- 2 sec
Solids by Weight, %, as supplied	33 +/- 1%

DRYING TIME: Air Dry 2-4 hours. Moving ambient air for the best drying conditions.
(at 20°C/68°F) Please note that drying times may change with varying temperatures, ventilation and relative humidity.

SUGGESTED COATING CYCLES:

Substrate: Different kinds of wood
Stain: WES5A01 & colors
Drying: 2 - 4 hours
Base Coat: TTx Series P/U WB Basecoats or TA Series P/U Solvent Basecoats
Topcoat: TW34 Series P/U WB Topcoats or TO9 Series P/U Solvent Topcoats

TYPICAL STAIN COLOR FORMULATION:

WES5A01 80 parts
PD6 colors* 10 parts
Water 10 parts
*You may also use PC3 colors to obtain bright and very clear stains. PZ5xx Series Aquatech pastes may also be used at maximum 10% level.

TYPICAL GLAZE COLOR FORMULATION:

WES5A01 80 parts
PZ5xx colors* 10 parts
Water 10 parts
*You may also use PD6xx stain colorants

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 08-11, 6-12, 3-17

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WES5A07

DESCRIPTION: DRY WATER GLAZE

USES: Antiquing and Decape effect on mobile in style, doors and frames for painting

PRODUCT PREPARATION: WES5A07 Dry Glaze 100 parts by weight 128 parts by volume
May be tinted to color using ILVA PZ5xx series water-base pigmented pastes.
May be diluted with water if needed.

APPLICATION SYSTEM: By spray and wipe. Allow to air dry 15-45 minutes. Moving ambient air is best for drying conditions.
After drying, remove the antiquing glaze with scotch brite or cloth to desired effect.

GENERAL PROPERTIES: Specific gravity: 1.02 +/-0.02 gr/m;
Solids content: 8.45% +/- 1% by weight
Viscosity (at 20°C): 50+/-3 (iso 6)

TYPICAL SYSTEM: PT410 1 coat-dry 2-3 hours and sand
PW710/10 with 5% TXW08 1 coat-dry 2- 3 hours and then very lightly sand with scotch brite
WES5A07 tinted with PZ5xxseries apply by cloth-allow to dry 45 minutes
remove with scotch brite or cloth
TW34/series final clear coat

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 4-13

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ILVA TECHNICAL DATA SHEET

PRODUCT CODE: WMM5A/SERIES

DESCRIPTION: WB WHITE SELF-SEALER

USES: Furniture, architectural millwork, store fixtures. Offers the best in dry times and leveling, with very good sanding properties and filling power.

PRODUCT PREPARATION: WMM5A series White Self-Sealer 100 parts by weight 128 parts by volume
Water 0-5 parts 1-6 parts by volume

APPLICATION SYSTEM: Spray

FILM THICKNESS: 4.4 - 5.2 wet mils

GENERAL PROPERTIES: Specific gravity: 1.28+/-5 gr/l
Solid content (% by weight) 55 +/- 2 by weight
Viscosity (at 20°C): 95+/-15 (iso 6)

DRYING TIME: All dry times are dependent upon air flow, ambient temperatures, and humidity
(at 20°C/68°F) Drying schedule at room temperature 2-3 hours
Drying time with hot air tunnel 20-30 mins
Dust free/time gel 30-60 mins
Dry to touch 2-3 hours
Dry Hard 6-8 hours
Stackable overnight
Sandable after 2-3 hours before applying 2nd coat as topcoat

GLOSS LEVELS: WMM5A03D 60 sheen
WMM5A032 50 sheen
WMM5A033 30 sheen
WMM5A034 20 sheen
WMM5A036 10 sheen

SHELF LIFE: 12 Months

STORAGE: Store in a tightly closed container at room temperatures (18 -25°C/64 -75°F) and protect from moisture and foreign material. Do not store at temperatures below 7°C (45°F)

DATE OF ISSUANCE: 8-14, Revised 1-15, 9-16

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HELPFUL HANDLING & MIXING INSTRUCTIONS

VISCOSITY AND REDUCTION

Our waterbase products are generally formulated at a high thixotropy level. This is done to ensure good vertical spray properties. Water can be used as a thinning agent generally at 5-10%. Our recommended thinner or retarder is PX0/03, at a level of 1-5%. We also have a special Waterbase Reducer, code TZ-88, used at 1-5%. It will reduce the viscosity much faster than adding water, but will retard the dry.

ADDING THE PU HARDENER

PU Hardener HXS5A16 and TXW08 are used to increase the resistance properties. The end result will be our most resistant waterbase products. Please note that both HXS5A16 and TXW08 are not flammable.

HXS5A16 is difficult to add by hand stirring. If you attempt to do this, you must make a pre-mix of the reducer and hardener. First make a mixture of 80% water and 20% TZ08, (our code TZ88). Then mix this reducer 1/1 with the HXS5A16. This premixed reducer and hardener can then be added to the paint. If you are adding HXS5A16 under mechanical agitation, you may add it directly to the paint while stirring. HXS5A16 is a non-yellowing hardener and gives the best chemical resistance properties.

TXW08 may be added directly to the paint whether stirring by hand or using mechanical agitation. The higher the level of TXW08, the slower the dry time will be. TXW08 is a non-yellowing hardener and gives a slightly lower result in chemical resistance properties versus HXS5A16.

Many of our water-based products may be used without the addition of hardener, or by using TXW02 Crosslinker or by adding polyurethane hardeners HXS5A16 or TXW08. Please refer to the individual product technical data sheet. The more hardener you add, the better the chemical resistance properties. A general rule of thumb is that higher levels of hardener will slow down the dry time and may effect the gloss level.

ADDING THE CROSSLINKER

TXW02 Crosslinker is used to increase the resistance properties over using waterbase as a one component product. These properties will not be as high as using a Polyurethane Hardener.

TXW02 may be added directly to the paint whether stirring by hand or using mechanical agitation. The recommended level of TXW02 is 1.0%. Adding the crosslinker will improve the chemical resistance properties versus using the material as a one component product. The crosslinker remains effective for approx 8 hours. At the end of this time, the unused product is not lost, but may be rejuvenated by adding an equal volume or more of fresh material to the product that was not used, and then you must re-crosslink at 1% the entire new quantity.

SANDING

It is recommended that you use a finer grit paper for sanding raw wood when finishing with water-based products than solvent based products. When sanding water based finishes 280-320-400 steartated paper is recommended.

SPRAY APPLICATION

You may use air-assisted airless, conventional, pressure pot, or cup gun for spraying. Best results are obtained using air-assisted airless with 600 fluid lbs and 35-40 static atomizing pressure and small tips, such as 06134/06154.

DRYING

Best drying method for water-based products is warm moving fresh air. Fresh air is necessary to keep the drying room humidity level under control.

RECOMMENDED STORAGE

All water-based products should be stored in tightly closed containers at temperatures above 5°C (41°F)

Date of Issuance: 09-10, Revised 11-12, 9-16, 3-17, 2-18

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CONCERNS

Since every single panel or any other substrate, even if of the same chemical nature, can be theoretically different than the previous one and possess chemical and physical properties which can greatly influence the end-results of the applied coating, and considering that the mixing, catalysis and diluting operations are not under our strict control, nor are temperatures, air humidity and technical features of the various installations, which can also effect the end results, subject to our personal decision at the time of application, it is impossible for our company to assume any responsibility whatsoever in regard to the results obtained with the use of our products.

Futhermore, we underline the fact that in industrial applications, a tolerance of 5% in the overall results is considered normal and is definitely not caused by the quality of the products employed.

The technological information contained in the present technical data sheets are based on the average results obtained with the test effects in our laboratories, and as such represents the most complete information and technological experience available in the wood coating field.

Our company gives the maximum assurance as to the constancy of the chemical and physical properties of our products within the tolerance limits indicated on our technical data sheets. Our company is also always ready to substitute any of our products, whenever the properties do not correspond to the information given in our technical bulletins.

Nevertheless, the end results obtained are under the complete responsibility of the end user, who has the obligation to verify if the properties of the specific products in use correspond to his particular requirements, and if the ambient conditions, application, installation and substrates might eventually indicate substantial modifications of the products involved.

All the information in our technical data sheets have been obtained at a temperature of 20°C and at a relative humidity of 70%.

3-07-18

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