

In-house priming guidelines for HP Indigo

WS6000 / ws4xx0 / s2000 presses

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Progressive Profitable Printing



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# Inhouse coating - Flexo priming guidelines for HP Indigo presses ws6000

Application	Target media	Primer Choice	Corona treatment. Min 42 dynes required	Recommended drying temperature and speed	Anilox Specifications	Target Wet Weight	Estimated Shelf-life of primed media
Pressure Sensitive Label / Synthetics	PE/PP	1. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
		2. Emicote 2	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	300 lpi X 30 microns, 10.7cc or 6.9 BCM	1.6 grams per square meter or 0.0875 ounces per MSI	Within weeks
Pressure Sensitive Label / Synthetics	PET	1. Digiprime 4431	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
		2. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
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		4. Digiprime 2000 +15% IPA	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
Pressure Sensitive Label / Paper (general)	paper - coated	1. Digiprime 2000	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
		2. Sapphire 5 or (3.2 for NA)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days



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<b>Pressure Sensitive Label / Wine label</b>	Paper uncoated – textured / embossed	1. Digiprime 1000	no	70 to 90 degrees C.(160 to 200 degrees F.) at 15 to 25 meters (50 to 80 ft) per min.	200 lpi X 40 microns, 14.7cc or 9.5 BCM	2.5 grams per square meter or 0.1368 ounces per MSI	Within weeks
		2. Digiprime 2000 (double coated)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM (double coated)	2 grams per square meter or 0.1094 ounces per MSI	Up to 6 months
		3. Sapphire 5 (3.2 for NA)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days
<b>Shrinksleeve</b>	PVC/PET/OPS	1. Digiprime 4431	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
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	Laminates (including PE or PP as top printable layer)	1. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
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	Plasticized PVC	To be confirmed					
	Paper	1. Sapphire 5 (3.2 for NA)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days
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# Notes for WS6000

- Verify ink adhesion according to industry trade standards. HP Indigo uses FINAT for pre-optimized media certification.
- Similar substrates from different suppliers may show variety in performance.
- Recommend to use non-top coated media for inhouse coating. Special attention should be given to the presence, nature and chemistry of top-coated media.
- Corona unit power settings - refer to manufacturer and primer supplier recommendations.
- For best results follow equipment manufacturer and primer supplier maintenance instructions.
- Refer to Press Substrate Process Parameters (SPP) to improve media performance. PTH may improve ink adhesion.
- Before calling support, please print test a reference media to rule out press-related issues.
- Excessive Sapphire coating may result in yellowing.
- Shelf-life of primed media depends on applied primer coat-weight and storage conditions.
- For further assistance, please contact your local support.



## Inhouse coating - Flexo priming guidelines for HP Indigo presses ws4xx0

Application	Target media	Primer Choice	Corona treatment. Min 42 dynes required	Recommended drying temperature and speed	Anilox Specifications	Target Wet Weight	Estimated Shelf-life of primed media
<b>Pressure Sensitive Label / Synthetics</b>	PE/PP	1. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
		2. Emicote 2	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	300 lpi X 30 microns, 10.7cc or 6.9 BCM	1.6 grams per square meter or 0.0875 ounces per MSI	Within weeks
	PET	1. Digiprime 4431	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
		2. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
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	<b>Pressure Sensitive Label / Paper (general)</b>	paper - coated	1. Digiprime 4431	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI
2. Sapphire 5 or (3.2 for NA)			no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days

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# Inhouse coating - Flexo priming guidelines for HP Indigo presses ws4xx0

Application	Target media	Primer Choice	Corona treatment. Min 42 dynes required	Recommended Drying temperature and speed	Anilox Specifications	Target Wet Weight	Estimated Shelf-life of primed media
<b>Pressure Sensitive Label / Wine Label</b>	Paper uncoated - textured/embossed	1. Digiprime 1000	no	70 to 90 degrees C.(160 to 200 degrees F.) at 15 to 25 meters (50 to 80 ft) per min.	200 lpi X 40 microns, 14.7cc or 9.5 BCM	2.5 grams per square meter or 0.1368 ounces per MSI	Within weeks
		2. Sapphire 5 or (3.2 for NA)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
		3. Digiprime 2000 (double coated)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM (double coated)	2 grams per square meter or 0.1094 ounces per MSI	within days
<b>Shrinksleeve</b>	PVC/PET/OPS	1. Digiprime 4431	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Up to 6 months
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# Inhouse coating - Flexo priming guidelines for HP Indigo presses ws4xx0

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Flexible Packaging	PE/PP	1. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
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	Plasticized PVC	1. Digiprime 5000	mandatory	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days
	Laminates (including PE or PP as top printable layer)	1. Sapphire 5 +15% IPA (=Sapphire 515 in NA)	recommended	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	Within weeks
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	Paper	1. Sapphire 5 (3.2 for NA)	no	70 to 90 degrees C.(160 to 200 degrees F.) at 25 to 50 meters (80 to 170 ft) per min.	400 lpi X 20 microns, 6cc or 3.9 BCM	1 gram per square meter or 0.0547 ounces per MSI	within days
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# Notes for ws4xx0

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- Corona unit power settings - refer to manufacturer and primer supplier recommendations.
- For best results follow equipment manufacturer and primer supplier maintenance instructions.
- Before calling support, please print test a reference media to rule out press-related issues.
- Excessive Sapphire coating may result in yellowing.
- Shelf-life of primed media depends on applied primer coat-weight and storage conditions.
- For further assistance, please contact your local support.



## Inhouse coating - Screen or Offset priming guidelines for HP Indigo presses s2000

Application	Target media	Primer Choice	Coating technology	Corona treatment	Recommended drying temperature and speed	Screen Specifications	Target Wet Weight	Estimated Shelf-life of Primed media
<b>Synthetics</b>	PP, PE, PET, PVC, OPS, PC, PETG, APET	1. Topaz 17	Screen	recommended	60 degrees C. (140 degrees F.) Maximum airflow	100 mesh per cm. 40 micron thread diameter	11 grams per square meter or 0.6 ounces per MSI	Within weeks
<b>Cardboard</b>	Board	1. Sapphire 5 (Sapphire 3.2 for NA)	Offset	no		n/a	0.5 to 1.0 grams per square meter	Within days
<b>Pressure Sensitive Label/Synthetic</b>	PP, PE, PET, PVC	1. Topaz 17	Screen	recommended	60 degrees C. (140 degrees F.) Maximum airflow	100 mesh per cm. 40 micron thread diameter	11 grams per square meter or 0.6 ounces per MSI	Within weeks
<b>Pressure Sensitive Label/Paper</b>	Paper	1. Sapphire 5 (Sapphire 3.2 for NA)	Offset	no		n/a	0.5 to 1.0 grams per square meter	Within days

### NOTES:

- Verify ink adhesion according to industry trade standards. HP Indigo uses FINAT for pre-optimized media certification.
- Similar substrates from different suppliers may show variety in performance.
- Recommend to use NON top coated media for inhouse coating.
- Corona unit power settings - refer to manufacturer and primer supplier recommendations.
- For best results follow equipment manufacturer and primer supplier maintenance instructions.
- Before calling support, please print test a reference media to rule out press-related issues.
- Excessive Sapphire coating may result in yellowing.
- Shelf-life of primed media depends on applied primer coat-weight and storage conditions.
- For further assistance, please contact your local support.

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# Digiprime 4431 versus Sapphire


<b>Digiprime</b>	<b>Sapphire</b>
Adheres to a wide variety of media, synthetic and paper etc.	Used mostly for Paper, will work on some synthetics (for synthetics may require addition of iso Propyl Alcohol).
Excellent ageing normally in excess of 6 to 12 months, does not yellow.	Variable shelf life of Sapphire primed media, dependent on media surface, storage conditions etc. maximum shelf life 6 months
In line corona treatment is a must for synthetics and most top coated surfaces	May adversely affect blanket life and give yellow coloration to media surface if too much applied
Efficient drying required	Requires minimal drying on paper media
Water resistance is better than Sapphire	Cleaning is easier than for Digiprime



# Primer overview - history and obsolete primers

 <p><b>Sapphire 3.2</b> (NA only)</p> <p><b>Sapphire 515</b> (NA only)</p>	 <p><b>Sapphire 5</b></p>	 <table border="1"> <tbody> <tr> <td data-bbox="1187 526 1579 606"><b>Digiprime 1000</b></td> <td data-bbox="1579 526 2031 694" rowspan="2">Paper substrates</td> </tr> <tr> <td data-bbox="1187 606 1579 694"><b>Digiprime 2000</b></td> </tr> <tr> <td data-bbox="1187 694 1579 790"><del><b>Digiprime 4430</b></del></td> <td data-bbox="1579 694 2031 877" rowspan="2">Paper + synthetic substrates </td> </tr> <tr> <td data-bbox="1187 790 1579 877"><b>Digiprime 4431</b></td> </tr> <tr> <td data-bbox="1187 877 1579 965"><b>Digiprime 4450</b></td> <td data-bbox="1579 877 2031 965">As above for two-side coating</td> </tr> <tr> <td data-bbox="1187 965 1579 1070"><b>Digiprime 5000</b></td> <td data-bbox="1579 965 2031 1070">Specifically PVC or other problematic substrates</td> </tr> </tbody> </table>	<b>Digiprime 1000</b>	Paper substrates	<b>Digiprime 2000</b>	<del><b>Digiprime 4430</b></del>	Paper + synthetic substrates 	<b>Digiprime 4431</b>	<b>Digiprime 4450</b>	As above for two-side coating	<b>Digiprime 5000</b>	Specifically PVC or other problematic substrates
<b>Digiprime 1000</b>	Paper substrates											
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<p>Twenty Four Seven Global</p> <p><b>Emicote 2</b></p>	 <p><del><b>Topaz 10</b></del></p> <p><del><b>Topaz 17</b></del></p>											
 <p><b>Curecoat 1</b></p>												

 Water-based primer

 Solvent based primer

# Supplier contact details



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