



PART 1 – GENERAL

1.1 SUMMARY

- 1.1.1 Exterior or Interior stain and finishes, including surface preparation.

1.2 RELATED SECTIONS

- 1.2.1 Section 06 20 13 – Exterior Finish Carpentry

1.3 REFERENCES

- 1.3.1 40 CFR 59, Subpart D - National Volatile Organic Compound Emission Standards for Architectural Coatings; U.S. Environmental Protection Agency; current edition.
- 1.3.2 South Coast Air Quality Management District (SCAQMD): Rule 1113 – Architectural Coatings.
- 1.3.3 LEED v4 for building design and new construction: EQ and MR credits

1.4 DEFINITIONS

- 1.4.1 Wood products come in three forms: stains, finishes and treatments.

Stains are meant to change the color of the wood and bind the colorant to the wood and are therefore the first coat of any system.

Finishes are either penetrating or film-forming coats in different sheens and provide additional protection from moisture.

Treatments are meant to solve or play a specific, functional role such as wood conditioning, stain blocking, weathering, and preserving.

Stains are available in a wide range of opacities from natural/transparent stains that allow all the grain and texture to show to solid colors which mask all the grain but allow the texture to show. The following terms are used to describe the different opacities.

- 1.4.1.1 Natural
- 1.4.1.2 Translucent
- 1.4.1.3 Saturated
- 1.4.1.4 Ultra-Saturated
- 1.4.1.5 Solid Hide

- 1.4.2 Finishes are available in a wide range of sheens, as measured by a gloss meter using an 85 degree angle from vertical on sheens of 20 percent or less, using a 60 degree angle on sheens from 20 to 70 percent and a 20 degree angle on sheens of 70 percent and above, as a percentage of the amount of light that is reflected.



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The following terms are used to describe the gloss of these formulas. Gloss levels are made for spray application – brushing will change these sheen values. Actual reflection may differ by +/- 3 percent depending on many variables such as substrate, preparation and application methods.

- 1.4.2.1 Extra Low Luster: 9 Percent
- 1.4.2.2 Low Luster: 15 Percent
- 1.4.2.3 Satin: 30 Percent
- 1.4.2.4 Semi-Gloss: 55 Percent (only available in Floor)
- 1.4.2.5 Gloss: Over 60-80+ Percent

1.5 SUBMITTALS

- 1.5.1 Submit under provisions of Section 01 30 00 – Administrative Requirements.
- 1.5.2 Product Data: Use manufacturer's product data sheet to indicate
 - 1.5.2.1 Product description
 - 1.5.2.2 Product characteristics
 - 1.5.2.3 Surface preparation instructions
 - 1.5.2.4 Application methods
 - 1.5.2.5 Working procedures
 - 1.5.2.6 Storage and handling procedures
 - 1.5.2.7 Cross-reference to specified stain system(s) that the product is to be used in, including description of each system.
- 1.5.3 Samples: Acquire three identical Sansin Iris step boards that display wood substrate samples finished with selected color and sheen representing actual specified products. Include range samples if variation of finish is anticipated.

The finishes are displayed in steps and each coat is displayed separately as well as together. Sansin prepares samples on the actual substrate, whenever possible, since wood varies in color and density. Samples can be prepared to specification by Sansin Iris by contacting info@sansinactoryfinish.com.

Sansin will ask the architect to help secure a sample of the substrate from the wood supplier, whenever possible, and send to Sansin offices.

- 1.5.4 Manufacturer's Instructions: Indicate special surface preparation procedures.
- 1.5.5 Maintenance Data: Use manufacturer's product data sheet to indicate maintenance recommendations including maintenance cycle and cleaning procedures. The Building owner may utilize Sansin Care for long term, proactive maintenance guidance at their discretion.

1.6 QUALITY ASSURANCE

- 1.6.1 Qualifications of Applicators: Contractors shall have minimum of five (5) years proven satisfactory wood restoration and finishing experience of projects similar in size and class subject to Consultant's approval or be certified by the manufacturer. All products are to be installed by a single installer.



- 1.6.2 Colors: Consultant will help Architect to select stain color from Sansin's full color palette; including light and dark tones. Consultant will supply coating schedules showing where the various colors, sheen and products are recommended. Consultant and Architect may not necessarily select colors from The Sansin standard color palette. For custom tones and colors, it is strongly suggested that control samples be produced by Sansin Iris in collaboration with the project design team conforming Sansin Iris sample board policy.
- 1.6.3 Sansin Care Program: Sansin recommends that the Sansin IRIS project be enrolled by the architect or owner into Sansin's proactive maintenance program, called Sansin Care. To find out more and enroll visit: <https://www.sansin.com/resources/sansin-care/>
- 1.6.3 Samples: Actual job substrate samples supplied by Architect and finished by The Sansin Corporation finish laboratory with selected colors, sheens and specified products will be provided via Sansin Iris custom step boards for quality expectation reference. The finishes are displayed in steps and each coat is displayed separately as well as together.

Each finished substrate sample will be identified with job number, specified product, color formula and date.

1.7 STORAGE, DELIVERY AND HANDLING

- 1.7.1 Product will be delivered to site in sealed containers, with Sansin's original labels intact. Store in area as directed by Consultant, and keep covered and climatized at all times. Any unauthorized material on site, could result in the refusal of stain products.
- 1.7.2 In storage areas, have floor and wall surfaces protected from stain drips with clean sheets, clean plywood or metal pans where the mixing is being done. Storage areas are to be left neat and clean when required for intended use.

1.8 ENVIRONMENTAL CONDITIONS

- 1.8.1 Areas of work shall be clean and dust free before staining is started.
- 1.8.2 Sufficient ventilation and or heat are required to maintain environmental temperature and humidity as specified in Sansin's published Directions for Use. Allow substrate and product to climatize adequately before beginning. Application of coatings is best in climate controlled conditions that are consistent 24/7 to ensure substrate condition is constant during application of finishes.
- 1.8.3 For full protection of floors, furnishings, mechanical, electrical, special equipment and other areas not being stained, use clean drop cloths and protective coverings. As well, mask bordering areas of work that do not require stain. Clean surfaces soiled by spillage and stain spatter.
- 1.8.4 Do not stain surfaces during or immediately following rain, frost, dew, dusty, windy, or foggy weather.
- 1.8.5 Apply in proper conditions; ideal temperature of 10-23°C (50-75°F) with relative humidity of approximately 50%. Do not apply when temperatures at 10° Celsius or below.



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1.9 EXTRA MATERIALS

New material in each color and product used during the project will be provided by the applicator (in gallon sizes) for maintenance use. Containers will be labeled with Sansin's original labels and stored on site as directed by Owner.

Store material in climate controlled environment (see Product Data Sheet).

1.10 WARRANTY PROGRAM

Contractor hereby warrants that work of this Section shall remain free from failure. Manufacturing defect warranty terms and conditions are outlined in the respective Sansin Corporation Product Data Sheet and on the Sansin Product Label.

PART 2 – PRODUCTS AND COATING SCHEDULE

2.1 MANUFACTURERS

Acceptable manufacturer:

The Sansin Corporation - Toll Free: 1-877-SANSIN-1 (726-7461)

Email: info@sansinactoryfinish.com / Web: www.sansinactoryfinish.com

2.2 PRODUCT FAMILIES

Sansin provides both retail and industrial finishes and the applicator should follow the specification as noted to utilize the correct product.

Products denoted as PC or Precision Coat indicate using our architectural/industrial finish line.

A retail version must not be substituted for Precision Coat products, as durability, color and transparency will differ.

2.3 EXTERIOR SURFACES COATING SCHEDULE

Below is your recommended coating schedule based on many parameters, including substrate, exposure, maintenance expectations and final finish, to name a few.

*Note, the first coat is meant to fully penetrate all six (6) sides of the wood substrate.

1. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
2. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]



Coat #3- Apply [wet mils film thickness] of [selected product & color formula]

3. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
4. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
5. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]

2.4 INTERIOR SURFACES COATING SCHEDULE

1. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
2. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
3. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
4. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]
5. [Name] Substrate:
Coat #1- Apply [wet mils film thickness] of [selected product & color formula]
Coat #2- Apply [wet mils film thickness] of [selected product & color formula]
Coat #3- Apply [wet mils film thickness] of [selected product & color formula]



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2.5 REFERENCE – ARCHITECTURAL FINISHES

SURFACES	SANSIN RECOMMENDED PRODUCTS
1. SIDING	PRECISION COAT SDF, PRECISION COAT ENS, EOS, WOOD FORCE, PRECISION COAT SDF TOPCOAT, PRECISION COAT SDF FOUNDATION
2. DECKING	PRECISION COAT SDF, EOS, ARDERA, WOODFORCE, WOOD SEALER, PRECISION COAT SDF TOPCOAT
3. ROOFING	ROOF-TEC, WOODFORCE
4. FURNITURE	PRECISION COAT SDF, PRECISION COAT ENS, EOS, ARDERA, RESOLUTION I, RESOLUTION II
5. FASCIA, WINDOWS, DOORS & MILLWORK	PRECISION COAT ENS, PRECISION COAT SDF, ARDERA, EOS, RESOLUTION I, RESOLUTION II
6. LAMINATED STRUCTURAL WOOD	PRECISION COAT SDF, KP-12 W OR UVW, PRECISION COAT FOUNDATION, PRECISION COAT ENS, PRECISION COAT SDF TOPOCAT
7. SOLID TIMBER & LOGS	TIMBER TEC, CLASSIC 123, PRECISION COAT FOUNDATION, BORACOL

2.6 INDUSTRIAL - Laminated Wood, Structural Timber, Factory Finish

APPLICATIONS	SANSIN RECOMMENDED PRODUCTS
1. UNDERCOAT	TIMBER-TEC, KP-12 W OR UVW , PRECISION COAT FOUNDATION, KP-11
2. EXTERIOR FACTORY FINISH	PRECISION COAT EXTERIORS (SDF, WOODFORCE, SDF TOPCOAT, ENS), ROOF -TEC
3. INTERIOR FACTORY FINISH	PRECISION COAT INTERIORS (PURITY STAIN, PURITY FLOOR, PURITY CLEAR, PURITY GLACIER)



4. FIRE RETARDANT INTERIOR	FIRESTOP 99, FIRESTOP 97, SDF-FR (CLASS B – ALSO NON-EXPOSED EXTERIOR)
5. END GRAIN	END SEAL, KP-12, SDF TOPCOAT

2.7 INTERIOR WOOD SURFACES

APPLICATIONS	SANSIN RECOMMENDED PRODUCTS
1. FLOORS, WALLS, CEILINGS, AND CABINETS	PRECISION COAT PURITY FLOOR, PRECISION COAT PURITY 0-VOC STAIN, PRECISION COAT PURITY 0-VOC GEL STAIN, RESOLUTION IPRECISION COAT GLACIER
2. BIG TIMBER & LOG	CLASSIC 123, TIMBER-TEC, PRECISION COAT PURITY CLEAR, KP-12, PRECISION COAT FOUNDATION

2.8 MARINE

TEAK LIFE, RESOLUTION SYSTEM

2.9 WOOD PRESERVATION

BORACOL, BORLOX, IMPEL RODS, KP-12, KP-11, BORASAN
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2.10 CLEANERS

WOOD WASH, WOOD STRIP, WOOD LIGHTENER, MULTI-WASH

PART 3 - EXECUTION

3.1 WORK AREA – CONSTRUCTION SITE

Delivery should be coordinated between the manufacturer and the contractor to ensure that the necessary off-loading and lifting equipment is available on-site. Padded or non-marring slings should be used to lift the beams. If slings are unavailable, stainless wire rope (to avoid inking) may be utilized, provided the corners of the member are protected with wood blocking. Wood pieces should never be dragged or dropped. Climate, amount of shop finishing and site conditions should be considered when determining an appropriate time to remove the protective wrapping.



Care must be taken not to tear/rip or otherwise damage the product wrapping. Wood should be stored at least one meter above ground level. If storing on gravel or muddy yard surfaces, tarps should be laid down below the storage area to reduce ground moisture impact. Wood products must be well protected at all times before installation.

Careful consideration should be given to the handling and storage of wood. It should be determined if protective wrapping is suitable for its intended purpose.

Any use of corrosive steel fasteners or handling equipment will likely result in iron staining or inking (moldy appearance). This must be prevented by using non marking lifting bridals or stainless steel forks or hardware.

3.2 SURFACE ASSESSMENT

- 3.2.1 Prior to beginning work thoroughly examine surfaces intended to be stained.
- 3.2.2 The supplier or GC should determine that the process and treatments adequately protected the surface during all stages of material handling. Finishes depending on functional and decorative features will be more or less resistant to UV, fungi and water, and therefore protective measures must be confirmed or planned and changed relative to construction plans and timelines.
- 3.2.3 Report in writing, conditions, which would adversely affect work.
- 3.2.4 Proceed with work only when surfaces and conditions are satisfactory per Sansin's published Directions for use. Remove dust, grease, rust, scale and extraneous matter, as well as tool and machine marks and insects from all surfaces, which could be detrimental to a satisfactory and acceptable finish.
- 3.2.5 Where conditions are unsatisfactory, promptly notify Architect and obtain direction prior to beginning work.

3.3 SURFACE PREPARATION

Consult Sansin's published Directions for use to ensure appropriate preparation techniques are being followed, and to obtain the best protection that Sansin Enviro Stains can deliver.

3.4 APPLICATION

- 3.4.1 Safe and adequate equipment must be provided; scaffolding, ladders, brushes, rollers, spray equipment (if applicable), clean drop cloths and any other items needed to complete the work. High quality brushes, rollers, sprayers etc., are strongly encouraged to achieve best results. Qualified tools (Corona 6" Chinex Bristle Brushes, HVLP Air Assist or Airless Sprayers)) enable a higher dosage to the point of refusal and a more even finish for Sansin Products.

Apply materials in accordance with Sansin's published Directions for Use and specifications.



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- 3.4.2 Perform a test application to ensure desired results are achieved, especially when using in combination with other non-Sansin products. Compare results to approved Sansin Iris step boards that demonstrate specifications for quality control. To order step boards, contact Sansin at (519) 245-2001.
- 3.4.3 Finishes shall be free of defects in materials and workmanship affecting appearance and performance. Defects shall include but not be limited to; improper use or application of materials, improper cleaning and preparation of surfaces, uneven coverage, and poor cutting in.
- 3.4.4 Apply by means as recommended by The Sansin Corporation. Any sort of fan or ventilation system equipment must be shut off during spray application.
- 3.4.5 Mix materials thoroughly before and during application and apply without diluting or adding to mixture, except as directed by Sansin. Apply adequately even full coats as measured by a wet film gauge and manufacturers specifications, free from brush marks, runs, and other defects. Stain should be uniform in sheen, color and texture. Back-brush to prevent puddling. For best results, first coat must be flooded to the point of refusal to properly prepared surfaces (see Manufacturer Directions for Use)
- 3.4.6 Allow stain to dry before applying additional coats (if applicable).
- 3.4.7 Specified finishes and number of coats are intended to cover surfaces completely. If not, application of further coats may be necessary until complete coverage is achieved. To ensure maximum penetration, flood the surface liberally and adhere to mil thickness recommendation on manufacturer's product data sheet. A second or additional coat does not make up for flood penetrability, especially in the first coat. Ensure all areas that have been cut or patched are adequately coated and protected.

Ensure that all end-grain, drill holes and cut-outs are saturated with each specified coat to ensure coverage and maximize protection.
- 3.4.8 Arrange to have completed areas free of traffic wherever possible, or provide adequate protection.

3.5 FIELD QUALITY CONTROL REFERENCE

- 3.5.1 Qualified Applicators shall have control samples available in the field to serve as quality control reference and set expectation for surface preparation and finishing standards. To order another set, contact Sansin at (519) 245-2001.
- 3.5.2 If available, use Sansin Iris step boards which display finished wood substrate samples in steps and each coat separately as well as together to achieve protection and aesthetic objectives.

Notify the Sansin Corporation of any intended product substitutions or product change-orders so that Sansin can ensure the coating schedule and requested decorative, protective, and functional coating specifications can be met and achieved with the proposed substitution.



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3.6 CLEANING

While working stain spills, splashes or spatters should be quickly cleaned or removed. The premises will be kept free from any unnecessary accumulation of tools, equipment, excess materials and debris. Upon completion of work, leave the premises neat and clean to the satisfaction of Consultant.