Proto Litho® C1S

Substantial feel at a lighter weight. Proto Litho brings all the best-in-class benefits of Proto—including an advantaged surface, a substantial feel, and sturdiness under pressure—to meet your corrugated litho lamination packaging needs. A paperboard that is lightweight and dependable, Proto Litho helps products make a statement, without sacrificing strength and adhesion for maximum converting efficiency. Consistent ROI—that's the new standard.

The Proto Litho experience

Product uses

- Displays
- Mailing envelope
- Fashion and lifestyle
- Consumer electronics
- Beverage box
- Food packaging
- POS material
- Shelf-ready packaging
- Topliner

Product classification

Solid Bleached Sulfate (SBS)[1]

Unmatched yield advantage

Proto Litho achieves a lower basis weight in higher caliper options, resulting in a substantial product, that significantly reduces paper and distribution costs.

Consistent downstream performance

As an SBS board, Proto Litho has the strength and durability to optimize lamination to corrugated board for a variety of applications. It's designed with exceptional adhesion properties and dimensional stability, providing more flexibility in layout and downstream operations.

Strict tolerance standards

Using only tight tolerance standards, Proto Litho's uniform printing surface delivers minimal variability within and across production runs.

Enhanced optics for lasting impact

With a vibrant blue-white shade and unique coating formulation, Proto minimizes fade resistance—ensuring lasting whiteness and image integrity.

Superior surface and printability

Proto Litho's smooth and uniform surface has a proprietary coating engineered for brilliant color reproduction, sharper details, and better ink hold-out. Its surface is optimal for reproducing special effects such as foil stamping, blind embossing, and a variety of varnishes and spot UV applications.

Food contact/health and safety

- US FDA Title 21 § CFR 176.170 and 176.180 compliant (restrictions apply)
- Section B.23.001 of Division 23 of the Food and Drugs Act and Regulation
- Elemental chlorine-free (ECF)
- Canada EPA Chemical Challenge List compliant
- California Proposition 65 (labeling is not required)
- REACH Regulation 1907/2006/EC (registration is not required and the product does not contain any substances found on the SVHC Candidate List)
- RoHS (Restriction of Hazardous Substances) compliant
- Heavy metals: compliant with the Model Toxics in Packaging Legislation (formerly known as CONEG) and Directive 94/62/EC

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The Sappi experience

Innovation

In our state-of-the-art Somerset Mill located in Skowhegan, Maine, we continue to invest in machinery designed to deliver a high-quality product with optimal performance throughout the converting process.

Sales and tech support

Our teams have the expertise and dedication to ensure customer success before and after the sale. The Sappi technical services group can help with all aspects of printing and converting, and our sales team provides end-to-end packaging support.

Non-integrated supplier

With Sappi, your business is your business. We focus only on producing paperboard—prioritizing the needs of customers and providing you with a quality, cost-efficient product.

Sustainability

Sappi North America is an industry leader in sustaining a low carbon footprint, with approximately 81% of our energy generated from renewable or alternative fuels. We are committed to decreasing energy consumption, reducing waste, and improving process efficiencies across our entire manufacturing process. In 2021 we earned a Platinum rating from EcoVadis, a highly regarded rating firm assessing over 30,000 companies annually around the globe. Our Platinum rating puts us in the top 1% of all companies surveyed across a broad range of social and environmental indicators.

Certifications

All of Sappi North America's US-based coated paper and packaging mills are triple-certified in accordance with the leading global sustainable forestry Chain-of-Custody certification systems, including the Forest Stewardship Council® (FSC®-C014955), the Sustainable Forestry Initiative® (SFI®) program, and the Programme for the Endorsement of Forest Certification (PEFC/29-31-10). Product certifications are available upon request, pending availability of credits. The producing mill is ISO 9001, ISO 14001, and ISO 45001 certified.

Proto Litho C1S targets—grade properties by caliper[2]

IMPERIAL					UNITS	METHOD	TOLERANCE
Caliper		8	10	12	mils	TAPPI T411	± 0.5
Nominal BW (24" x 36")		99	120	141	lb/3000 ft^2	TAPPI T410	
Moisture		6.5	6.5	6.5	percent	TAPPI T412	
Taber Stiffness 15°	MD	25	42	67	g-cm	TAPPI T489	
	CD	15	25	42	g-cm	TAPPI T489	
Cobb Size (2 minute)		50	50	50	g/m^2	TAPPI T441	
ZDT		70	50	50	psi	TAPPI T541	

METRIC					UNITS	METHOD	TOLERANCE
Thickness		203	254	305	micron	TAPPI T411	± 12.7
Nominal Grammage		161	195	230	gsm	TAPPI T410	
Moisture		6.5	6.5	6.5	percent	TAPPI T412	
Taber Stiffness 15°	MD	2.4	4.1	6.6	mNm	TAPPI T489	
	CD	1.5	2.5	4.1	mNm	TAPPI T489	
ZDT		483	345	345	kPa	TAPPI T541	

Proto Litho C1S targets—coated side

L*a*b* Paper White: 94.60, -0.50, 1.20 [3]
95.35, -0.14, 0.95 [4]

COATED SIDE				UNITS	METHOD	TOLERANCE
Caliper	8	10	12	mils	TAPPI T411	± 0.5
GE Brightness	87.5	87.5	87.5	percent	TAPPI T542	
Parker Print	1.0	1.0	1.0	micron	TAPPI T555	

1 SBS produced with proprietary blend of bleached chemical fiber and high-quality bleached chemical-thermo mechanical pulp.

2 Proto Litho C1S is tightly controlled to caliper. Basis weight may vary by production run.

3 CIE L*a*b* values are approximate and stated with UV included, according to ISO 5631-2:2015 guidelines. The color measurement methodology incorporates CIE standard illuminant D65 (simulated), 10° Standard Observer, and d/0° illumination/measurement geometry. Average CIE L*a*b* data are presented for relative paperboard shade comparisons—not as product specifications.

4 CIE L*a*b* values are approximate and in conformance with ISO 13655:2017. Data are specified according to the measurement condition M0; measured using an X-Rite eXact, configured to D50, 2° Standard Observer, 45/0 measurement geometry, with white (self) backing. Values may vary significantly when measured with different instruments. Average CIE L*a*b* data are presented for relative paperboard shade comparisons—not as product specifications. Paper white values specified according to the measurement condition M1 are available upon request.

All values listed are approximate and subject to change.

Sappi packaging products may be available as certified upon request. For more information, please contact your Sappi representative or visit our website at *sappi.com*.

The data, specifications, and/or certifications provided herein are current as of the date of printing and may change without notice at Sappi's discretion.

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