Proto Litho® C1S

Extraordinary performance 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

- Single-face lamination
- Topliner
- Club store packages
- Consumer electronics
- Beverage box
- Food packaging
- POS material
- Shelf-ready packaging
- Displays
- Mailing envelope

Product classification

Solid Bleached Sulfate (SBS)[1]

Unmatched yield advantage

Proto Litho delivers a high-yield, domestic SBS solution across the caliper range, resulting in a substantial product that reduces paper and distribution costs. The expanded caliper range, with our new 9pt and 11pt, provides more options to further reduce paper costs without sacrificing strength and durability.

Consistent downstream performance

As a high performing top sheet, Proto Litho has the strength and durability to optimize lamination to corrugated board for packages and displays. 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 and calipers.

Enhanced optics for lasting impact

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

Superior surface and printability

Suitable for Lithography, Flexography and Digital Ink Jet technologies, 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, and a variety of varnishes and coating applications.

Food contact/health and safety

- US FDA Title 21 § CFR 176.170 and 176.180 compliant (restrictions apply)
- 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

Independent

With Sappi, we're your partner, not your competitor. We focus only on producing paperboard—prioritizing the needs of customers and providing you with a quality, cost-efficient product.

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.

Sustainability

Sappi North America is an industry leader in sustaining a low carbon footprint, with approximately 78% 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 2023 we earned a Platinum rating from EcoVadis, a highly regarded rating firm assessing over 30,000 companies around the globe annually. Our Platinum rating puts us in the top 1% of all companies surveyed across a broad range of social and environmental indicators.

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.

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, ISO 22000 and ISO 45001 certified.

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

IMPERIAL							UNITS	METHOD	TOLERANCE
Caliper		8	9	10	11	12	mils	TAPPI T411	± 0.5
Nominal BW (24" x 36")		99	110	120	131	141	lb/3000 ft²	TAPPI T410	
Moisture		6.2	6.2	6.2	6.2	6.2	percent	TAPPI T412	
Taber Stiffness 15°	MD	25	33	42	54	67	g-cm	TAPPI T489	
	CD	15	20	25	33	42	g-cm	TAPPI T489	
Cobb Size (2 minute)		50	50	50	50	50	g/m²	TAPPI T441	
ZDT		70	60	50	50	50	psi	TAPPI T541	

METRIC							UNITS	METHOD	TOLERANCE
Thickness		203	229	254	279	305	micron	TAPPI T411	± 12.7
Nominal Grammage		161	179	195	213	230	gsm	TAPPI T410	
Moisture		6.2	6.2	6.2	6.2	6.2	percent	TAPPI T412	
Taber Stiffness 15°	MD	2.4	3.3	4.1	5.3	6.6	mNm	TAPPI T489	
	CD	1.5	2.0	2.5	3.3	4.1	mNm	TAPPI T489	
ZDT		483	414	345	345	345	kPa	TAPPI T541	

Proto Litho C1S targets—coated side

L = 92.50, a = -0.40, b =1.00 [3]
L* = 94.35, a* = -0.16, b* =1.12 [4]

COATED SIDE						UNITS	METHOD	TOLERANCE
Caliper	8	9	10	11	12	mils	TAPPI T411	± 0.5
GE Brightness	87.5	87.5	87.5	87.5	87.5	percent	TAPPI T542	
Parker Print	1.0	1.0	1.0	1.0	1.0	micron	TAPPI T555	

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

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

3 Paperboard shade values are stated according to the Hunter L,a,b color model. The color measurement methodology incorporates CIE standard illuminant D65 (simulated), 10° Standard Observer, and d/0° illumination/measurement geometry. Data are reported with UV excluded.

4 CIE L*a*b* values are approximate and stated in conformance with the guidelines of ISO 13655:2017. Data are specified according to the measurement condition M1; measured using an X-Rite eXact spectrophotometer, configured to CIE standard illuminant D50 (simulated), 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 comparison—not as product specifications.

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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