

# Proto<sup>TM</sup><sub>c1s</sub>

**Substantial feel at a lighter weight.** Proto C1S is a sturdy, single-ply SBS capable of meeting a breadth of applications. It's the paperboard for everyday jobs, providing the quality you deserve with superior convertibility and a consistent surface. And with Proto, there's no need to waste time making adjustments to equipment already calibrated to SBS. It's everything you want—and more. That's the new standard.

## The Proto packaging experience

### Product uses

- General folding carton
- Cosmetic and perfume
- Health and beauty care
- Pharmaceutical and OTC
- Confectionery
- Fashion and lifestyle
- Consumer electronics
- Beverage
- Food packaging
- POS material

### Product classification

Solid Bleached Sulfate  
SBS Paperboard

### Food contact/health and safety

- US FDA Title 21 §CFR 176.170 and 176.180 compliant (restrictions may apply)
- Canada Food and Drug Regulations Section 23 compliant
- 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 Substance) compliant
- Heavy metals: compliant to the Model Toxics in Packaging Legislation (formerly known as CONEG) and Directive 94/62/EC

### Unmatched yield advantage

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

### Consistent downstream performance

As an SBS board, Proto has the strength and durability to offer a variety of calipers and optimum convertibility for folding, die-cutting, gluing and other converting applications. It's designed with exceptional dimensional stability, providing more flexibility in layout and downstream operations.

### Strict tolerance standards

Using only tight tolerance standards, Proto'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

Capable of printing on both offset lithography and flexography presses, Proto's smooth and uniform surface has a proprietary coating engineered for brilliant color reproduction, sharper details and better ink holdout on both sides of the paperboard. Suitable for UV, aqueous, or specialty coatings, hot foil stamping, embossing, special effects or varnishes.

# 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.

## Certifications

All of Sappi North America's 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™). Product certifications are available upon request, pending availability of credits. The producing mill is ISO 9001, ISO 14001, OHSAS 18001 certified.

## Non-integrated supplier

With Sappi, your business is your business. We focus only on producing paperboard—prioritizing the needs of independent converters and folding carton companies, and providing you a quality, cost-efficient product.

## Sales and tech support

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

## Sustainability

Sappi North America is an industry leader in sustaining a low carbon footprint, with approximately 80 percent 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 2018 we earned a Gold Rating from EcoVadis—a highly regarded rating firm assessing over 30,000 companies around the globe annually. Our Gold Rating puts us in the top 4 percent of all companies surveyed across a broad range of social and environmental indicators.

## PROTO C1S SPECIFICATIONS (IMPERIAL)

GRADE PROPERTIES BY CALIPER											UNITS	METHOD	TOLERANCE	
Caliper	8	10	12	14	15	16	18	20	22	24	mils	TAPPI T411	± 0.5	
Nominal BW (24" × 36")	106	118	141	158	167	177	193	206	226	243	lb/3000 ft <sup>2</sup>	TAPPI T410		
Moisture	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	percent	TAPPI T412		
Taber Stiffness 15°	MD	23	36	65	98	110	133	160	215	265	360	g-cm	TAPPI T489	± 15%
	CD	17	25	47	70	80	95	125	170	200	260	g-cm	TAPPI T489	± 15%
Cobb Size (2 minute)	50	50	50	50	50	50	50	50	50	50	g/m <sup>2</sup>	TAPPI T441		
<b>COATED SIDE</b>														
GE Brightness	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	87.5	percent	TAPPI T452		
Parker Print	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	micron	TAPPI T555		
ZDT	70	50	50	50	50	50	50	50	50	50	psi	TAPPI T541		
Shade—L value	93	93	93	93	93	93	93	93	93	93		x-Rite eXact		
Shade—a value	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4		x-Rite eXact		
Shade—b value	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		x-Rite eXact		

## PROTO C1S SPECIFICATIONS (METRIC)

GRADE PROPERTIES BY CALIPER											UNITS	METHOD	TOLERANCE	
Thickness	203	254	305	356	381	407	457	508	559	610	micron	TAPPI T411	± 12.7	
Nominal Grammage	173	192	230	257	272	288	314	335	368	395	gsm	TAPPI T410		
Moisture	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	percent	TAPPI T412		
Taber Stiffness 15°	MD	2.3	3.5	6.4	9.6	10.8	13.0	15.7	21.1	26.0	35.3	mNm	TAPPI T489	± 15%
	CD	1.7	2.5	4.6	6.9	7.8	9.3	12.3	16.7	19.6	25.5	mNm	TAPPI T489	± 15%
<b>COATED SIDE</b>														
GE Brightness	87.5	87.5	87.5	87.5	87.5	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	1.0	1.0	1.1	1.1	1.1	micron	TAPPI T555		
ZDT	483	345	345	345	345	345	345	345	345	345	kPa	TAPPI T541		
Shade—L value	93	93	93	93	93	93	93	93	93	93		x-Rite eXact		
Shade—a value	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4		x-Rite eXact		
Shade—b value	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		x-Rite eXact		



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](http://sappi.com).

Sappi North America FSC License Code FSC-C014955.

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.

Sappi is a trademark of Sappi Limited. PROTO and SPECTRO are trademarks of Sappi North America.

© 2019 Sappi North America, Inc. All Rights Reserved.

**Sappi North America**  
255 State Street  
Boston MA 02109

877.727.7401  
[www.sappi.com](http://www.sappi.com)

Effective 08.19  
PKG-1000

