



Cranston Specification # CS-004 RapStrap Grade A - Revision March, 2011

CS004 is the specification for the paper strapping sold by Cranston Machinery for use with Cranston's, Model 70B001, 70B002, 70B003, 70B004, and 70B005 Rap Strap Machines. This specification does not relate to the straps chemical formulations that make up the strap. MSDS copies are available for each grade of Cranston strapping, under separate cover.

A. STRAP

1. Size .735" (18.66mm) +/- .020" (.508mm)
2. The strap is made of multiple strands of twisted paper bonded together with an adhesive to make a continuous flat strap.
3. The average breaking strength of the strap will exceed 300# (136kg) at a rate of 1" (25.4mm) +/- 0.197" (5mm) per minute tensile pull.

B. FDA STATUS - Complies with 21CFR175.105

C. COIL

1. Core: I.D.- 8" (203mm) x 12" Long (304.8mm)
2. Strapping: Diameter not to exceed 27" (686mm).
3. Coil: Weight not to exceed 200# (90.7kg).

D. PACKAGING - Jumbos Coils (baby coils are custom order)

1. Each coil will include two labels on the inside of the core; the coil's serial number & Cranston's part number.
2. Each coil shall have a label on the outer diameter. This label will include Manufacture date, Cranston's part number, basic storage detail, an unwind indicator and is located to secure the end of the paper strap to the coils outer diameter while indicating the proper unwind direction.
3. Each coil has plugs in the core, multi-point ties, corrugated heads and is bagged.
4. Coils are palletized on girth.
 - 3 coil pack: 30" (762mm) x 40" (1016mm) pallet x approximately 32" (812mm) high.
 - 9 coil pack: 60" (1524mm) x 40" (1016mm) pallet x approximately 57" (1447mm) high.

E. TRANSPORTATION, HANDLING & STORAGE

1. This product must be kept in a clean, dry, and well protected environment. Pallet loads of coils must not be stacked on top of one another without proper shelving. Inventory must be rotated to assure consumption within 180 days of the manufactured date. The bag should be left on each individual coil until it is to be consumed.
2. For best results:
 - Consume product with humidity between 35-55% and temperature between 0 - 49C (32 -120 F).
 - Store product with humidity between 40-50% and temperature between -23 - 54C (-10 -130 F).
 - There are no special requirements for heat or refrigeration during transportation. Product must be brought to a usable temperature prior to consumption. Note: The re-warming process when frozen may take many hours or days depending on user's environment.

F. REPULPABILITY STATEMENT

The term "Repulpability" does not have a common definition shared by the industry. Although TAPPI has a procedure for making a hand sheet (um 213), it does not have an established procedure or standard to classify the characteristics of the hand sheet once complete. Repulpability of Cranston's Rap Strap has been confirmed through practical testing by its users. For practical testing, Cranston recommends one 20' length of Rap Strap for every 500# of pulp (optimized pattern on bales) or 33' length of Rap Strap for every 500# of pulp (2 x 2 strap pattern on every bale). Cranston uses the following table as its benchmark. Disintegration test results below were recorded Sept. 09, 2003. Note: These tests were done using 100% Rap Strap band only. There was no pulp added.

Temperature	Soaking Time	Revs. On British Disintegrator/No Refining				
Degrees F.	Minutes	10,000	20,000	30,000	40,000	50,000
68	30	Very few small Bundles	Complete dispersion	Complete dispersion	Complete dispersion	Complete dispersion

All grades of paper strapping supplied by Cranston Machinery have been tested and accepted for use with its Rap-Strap machinery. To assure proper storage, handling and application of the strapping and machinery, we recommend start-up and training services by one of our field service technicians. Please contact Cranston for a quote. Specifications are subject to change.