

COPACO

100% Rag Paper

Material Data Sheet

Item:

COPACO, Electrical Insulating Paper 105° C.

Description:

COPACO is a very robust electrical insulation press paper with extremely high tensile, tear, burst and dielectric properties. It is normally supplied with a high density, very smooth “Glazed Roll” finish which eases the insertion into slot cells, and provides excellent abrasion resistance. The product is well suited to be punched, formed or creased.

COPACO electrical insulating papers are manufactured from only high-grade new denim cuttings, the stock is extensively cleaned and specially refined to insure maximum purity and physical strength. No sizing, clay, fillers, or other chemical additives are used in COPACO. The absence of impurities ensures that COPACO's aging characteristics will meet the most exacting requirements. Meets MIL-I-695 type “R” specifications.

Application:

COPACO papers are used extensively for slot cell liners in armatures, slot cell liners and phase insulation in the stators of fractional hp motors. Other applications would include core and layer insulation in transformers. In many other devices it is used for washers, gaskets, shielding and barrier insulation.

COPACO is available from .003" to .125" in rolls, sheets, or coils slit to your specifications.

Thickness +/- 10%	Tear (g) MD	Tear (g) CD	Tensile (psi) MD	Tensile (psi) CD	Elongation % MD	Elongation % CD
.003	125	130	10,500	9,500	7.7	7.5
.005"	179	215	15,000	6,100	10.5	8.5
.007"	250	375	13,000	6,300	12.0	10.8
.010"	472	597	11,000	6,200	12.5	12.0
.012"	642	737	12,000	8,000	12.0	12.0
.015"	805	1047	14,000	7,500	12.0	14.1
.020"	1171	1486	11,500	6,300	12.0	12.0
.030"	1700+	1300+	11,500	6,300	12.0	12.0

Typical Test Values:

Dielectric: Greater than 300 volts per mil minimum (450vpm typical)
Methanol Extractables: 0.15 - 0.20%
Density: 1.15 - 1.30g/cm³
PH 7.0

- These figures are typical values only and do not constitute a specification.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration**MATERIAL SAFETY DATA SHEET****SECTION I**

MANUFACTURER'S NAME: Cottrell Paper Co., Inc	EMERGENCY TELEPHONE NO.: 518-885-1702
ADDRESS(Number, Street, City, State and ZIP Code): P.O. Box 35, Rock City Falls, NY 12863	
CHEMICAL NAME AND SYNONYMS: 100% Cotton Rag Electrical Insulating Paper	TRADE NAME AND SYNONYMS: Copaco and Copaco-125
CHEMICAL FAMILY: Cellulose 100% New Cotton	FORMULA: $(\text{C}_{60}\text{H}_{100}\text{O}_5)_x$

SECTION II - HAZARDOUS INGREDIENTS & EXPOSURE LIMITS

None as defined under OSHA Hazard Communication Standard 29 CFR 1910.1200 or under SARA Title III, Section 313. This material is considered an article under OSHA and TSCA standards.
If this product is used in a manner that could generate particulates(dust), NEPTCO recommends that the dust be treated as a "NUISANCE PARTICULATE" (Particulates Not Otherwise Classified) as defined by the American conference of Governmental Industrial Hygienists (ACGIH) or Particulates Not Otherwise Regulated) as defined by OSHA.

SECTION III - PHYSICAL DATA

APPEARANCE & ODOR	Clear or dyed with no odor	SPECIFIC GRAVITY (H ₂ O=1)	1.0-1.35
VAPOR PRESSURE (mm Hg.)	NA	PERCENT, VOLATILE BY WEIGHT	4-9% water
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____ =1)	NA
SOLUBILITY IN WATER	0	pH	NA
BOILING POINT(°F)	NA	MELTING POINT	NA

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

This material will burn if exposed to flame. Fire fighters should protect themselves from combustion products that may include carbon dioxide, carbon monoxide, and other toxic gases. Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to products of combustion exists. Fire and extinguishing media include water, carbon dioxide, foam or dry chemical.

SECTION V - STABILITY & REACTIVITY DATA

CHEMICAL STABILITY	UNSTABLE		CONDITIONS TO AVOID: None expected
	STABLE	X	
INCOMPATIBILITY(Materials to avoid): None			
HAZARDOUS DECOMPOSITION PRODUCTS: Via incomplete combustion only (see Section IV)			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID: None expected
	WILL NOT OCCUR	X	
Not Reactive			

SECTION VI - HEALTH HAZARD DATA

EXPOSURE LIMITS: NA

TOXICITY DATE: NA

CANCER INFORMATION: Contains no NTP or OSHA listed carcinogens.

PRIMARY ROUTE OF EXPOSURE : Skin contact

EFFECTS OF OVER EXPOSURE: It is unlikely that any potential health hazards will be expressed.

EMERGENCY FIRST AID PROCEDURES: It is not anticipated that any first-aid requirements will be necessary from normal Industrial handling of this material.

SECTION VII - APPLICABLE CONTROL MEASURES

APPROPRIATE HYGIENIC PRACTICES: Wash thoroughly after handling, and before eating, drinking, or smoking.

PROTECTIVE GLOVES: Used to avoid paper cuts

EYE PROTECTION: NA

OTHER PROTECTIVE EQUIPMENT: No special protection needed

SECTION VIII - ENVIRONMENTAL DATA

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Broken pieces, cuttings, or other debris should be swept or vacuumed.

WASTE DISPOSAL METHOD: Used or unused product should be disposed of in accordance with Federal, State, or Local laws or regulations.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Should be stored so as to be protected from moisture gain or loss

OTHER PRECAUTIONS: NA

DISCLAIMER:

The information presented in this MSDS was obtained from sources which COTTRELL believes are reliable; however, the information is provided without any representation or warranty, expressed or implied, regarding accuracy or correctness.

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