



Camclear Data Sheet

PRODUCT CODE 3009/003

PRODUCT DESCRIPTION	36 Gauge Camclear [®] coated Polyester.
PRODUCT CONSTRUCTION	36 Gauge Polyester, Aluminium Oxide coated on one side
TYPICAL END USE (S)	High clarity, moisture barrier, packaging laminates. Suitable for reverse printing and lamination
NOMINAL YIELD	56 msi/lb

PRODUCT PROPERTIES;

OXYGEN BARRIER (cc/100inch²/24 Hrs 73^{0F} 50%R.H) TEST METHOD: ASTM D3985	Typical value: 0.19
MOISTURE BARRIER (g/100inch²/24 hrs, 100^{0F} 90% RH) TEST METHOD: ASTM F1249	Typical value: 0.10
TYPICAL VISIBLE LIGHT TRANSMISSION.	87-89%
CAMCLEAR[®] OXIDE ADHESION STANDARD CAMVAC LIMITED TEST METHOD, USING 1109 TAPE	>99%
OXIDE SURFACE TENSION	Typically >72 Dynes
MECHANICAL PROPERTIES. TENSILE STRENGTH AT BREAK MD/TD ELONGATION AT BREAK MD/TD TEST METHOD; ASTM D882-83	210/240N/mm ² 120/110

See Notes Overleaf
Revised: November 2009



GENERAL NOTES: PRODUCT DATA SHEET 3009/001

*CAMCLEAR[®] is the registered trademark of Camvac Limited. Freedom from patent rights on converted products should not be assumed.

- 1) The information contained in this data sheet is supplied in good faith but it does not constitute part of any declared or implied product specification or guarantee, unless otherwise indicated. The information is believed to be accurate, but is given solely for your internal purposes. Camvac Limited shall not be liable for any inaccuracy of the information to any third parties to whom it may be passed, unless Camvac Limited has given its prior written consent to such information, and/or its incorporation with other information being given to a third party.
- 2) It is the responsibility of the end user to confirm suitability for their application. If in doubt about the feasibility of a particular end use, please seek technical assistance from Camvac Limited.
- 3) Camvac Limited's Camclear coated Polyester will be produced using polyester films approved for food packaging.
- 4) Camclear adhesion to all PET films can be variable due to variability in the base film outside our control. All material meets this minimum specification; consistency of results on converted products (such as laminate peel strength) should not be assumed and may vary from reel to reel or within a reel. Camclear coated polyester and laminates produced from it should not be used for applications where an exposed Camclear edge is likely to be in prolonged contact with water, particularly at a high or low pH.
- 5) Barrier verification should not be carried out on the outer turns of the reel, as samples are likely to be damaged due to handling. Barrier samples should be taken from further into the reel, from the centre, and careful handling of the samples is essential for accurate results.
- 6) Visible light transmission may vary from point to point within the specification limit. Because of the nature of the coating process, and the exaggeration of small differences in transmission through many layers of film, reels may appear to have bands in them, although variability will be much less noticeable on single sheets.

NOTES ON CONVERSION OF CAMCLEAR COATED POLYESTER FILMS:

- A. Camclear coated films must be carefully handled during conversion to avoid damaging the Camclear layer, which will produce deterioration in barrier properties. The converter should carry out thorough trials to confirm suitability for the end use. Flexing or elongation of the material can produce micro-cracking of the Camclear layer, which subsequently affects the barrier.

- B. Camclear coated polyester films have significantly better adhesion than Aluminium Metallised Films and laminate interply bond strengths are correspondingly higher. However Laminate peel strength is dependent on many factors outside the control of Camvac Limited, including product construction (e.g. thickness and type of materials used for conversion such as films or adhesives) and laminating conditions.

This must be taken into account by the converter in addition to the possible variability in Oxide adhesion from batch to batch.

- C. Adhesion of lacquers and inks to the Camclear coated surface may vary from reel to reel and can change with time. If the Camclear coated surface is to be lacquered or printed, the converter is advised to check that the inks will cope with any likely variability, which is an inherent property of Camclear, coated surfaces. Although this is not normally a problem on typical dry food packs, variability may be encountered if the printed surface is exposed to harsh conditions or critical performance requirements exist.
- D. Other material properties, which are a function of the substrate rather than the oxide coating must be assumed to be variable within the limits, defined in the base film manufacturer's specification. If no specification is given, consistency should not be assumed.
- E. Freedom from Patent rights on converted products must not be assumed.

STORAGE

Store in dry condition (30-70% Relative Humidity) at 10-30°C. Protect reel ends from water, which can cause blocking. Web flatness of aluminum oxide coated plastic films can deteriorate on prolonged storage. It is recommended that reels be used within one year of delivery. Product will not be guaranteed against specification if reels are used after this period.

FOOD CONTACT

Raw materials used in Camvac Limited's Camclear coated Polyester films comply with the following regulations;

SUBSTRATE	FDA	EUROPE
POLYESTER FILM	21.CFR.177.1630	2004/19/EC

EEC Directive 2004/19/EC applies specifically to materials and articles consisting exclusively of plastics and to laminates of such materials, and consequently does not apply to these products. Such films and laminates are subject EC Regulation No 1935/2004. (Framework Regulation)

All raw materials used in this product are declared suitable for food contact and hence the finished product will comply with the Framework Regulation. A number of monomers or starting substances that are used in the manufacture of this film are subject to specific migrational requirements under Directive 2004/19/EC. Specific migration tests indicate that migration into the various food simulants are well within the limits imposed for each of the monomers and starting substances. For further information please contact Camvac Limited's.

Tests carried out for Camvac Limited's on overall migration using food simulants as defined in Annex 1 of 2004/19/EC indicate migration will be within the limit of 10mg/dm² under normal conditions of use.

However, if the final structure is to be used at elevated temperatures, converters are advised to refer to Camvac Limited for further information. In such circumstances, converters are reminded that it is the responsibility of the packer to advise the simulants to be used as defined by 85/572/EEC, and the test conditions as defined by 82/711/EEC.