Standards Update - ASTM F02 Flexible Barrier Packaging & D10 Packaging

Michael L. Troedel
Troedel & Associates, Inc.
March 5, 2009
Memphis, TN
Agenda

Committees F02 & D10

Scope

Officers

Sub-Committee Organization and Chairs

Sub-Committee Activities
F02 Scope

The development of terminology, test methods, practices, and specifications for flexible barrier packaging, and the promotion of research in this field. Standards under the jurisdiction of other Committees shall be used when applicable.

The area of interest of the committee is flexible barrier packaging including the component barrier materials, their properties, and package design, development and production.

Flexible barrier packaging for the purpose of this Committee includes any package with at least one flexible component that can be bent or folded back upon itself.

Typical flexible barrier materials are paper, nonwovens, plastic films, and metal foils used alone, treated or in various combinations.
Officers

Chairman:  Hal Miller, Pace Solutions LLC

Vice-Chairman:  John J. Spitzley, Spartan Design Group

Recording Secretary:  Diona R. Sommario, Boston Scientific Inc.

Membership Secretary:  Gerald J. Montgomery,  Medtronic Inc.

Past Chairman: Michael L. Troedel, Troedel & Associates

Member-at-Large: Curtis L. Larsen,  Spartan Design Group

Member-at-Large: Craig K. Loebig,  Loebig & Associates
Sub-Committee Organization and Chairs

F02.10 Permeation - Michael Troedel

F02.15 Chemical/ Safety Properties - Marilyn Baker

F02.20 Physical Properties - Marie Tkacik

F02.40 Package Integrity - Nick Winters

F02.50 Package Design and Development - Dhuanne Dodrill

F02.90 Executive - Committee Officers
F02.10 Permeation


D3985-05 Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor

  WK 20329 Proposed Revision
  WK 20999 Proposed Revision

F02.10 Permeation


F1249-06 Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor

F2476-05 Test Method for the Determination of Carbon Dioxide Gas Transmission Rate (CO2TR) Through Barrier Materials Using An Infrared Detector
F02.10 Permeation


F2622-08 Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using Various Sensors

WK 9915 Guide to Oxygen Permeability Test Methods
F02.15 Chemical/Safety Properties


WK 20746 Proposed Revision

HealthPack®
F02.15 Chemical/Safety Properties


F02.15 Chemical/Safety Properties

F1884-04 Standard Test Method for Determining Residual Solvents in Packaging Materials

F2013-05 Standard Test Method for Determination of Residual Acetaldehyde in Polyethylene Terephthalate Bottle Polymer Using an Automated Static Head-Space Sampling Device and a Capillary GC with a Flame Ionization Detector

F2475-05 Standard Guide for Biocompatibility Evaluation of Medical Device Packaging Materials

F2638-07 Standard Test Method for Using Aerosol Filtration for Measuring the Performance of Porous Packaging Materials as a Surrogate Microbial Barrier
F02.20 Physical Properties

F88-07 Standard Test Method for Seal Strength of Flexible Barrier Materials
See also WK18863 proposed revision

See also WK13027 proposed revision


F02.20 Physical Properties


See WK10325 Proposed Revision

F2029-08 Standard Practices for Making Heatseals for Determination of Heatsealability of Flexible Webs as Measured by Seal Strength
See also WK10325 proposed revision

F02.20 Physical Properties


F2217-02(2007) Standard Practice for Coating/Adhesive Weight Determination


F02.20 Physical Properties


WK 18963 Mechanical Seal Strength Testing for Cups, Bowls, and Trays with Flexible Peelable Lids
F02.40 Package Integrity


F2095-07 Standard Test Methods for Pressure Decay Leak Test for Nonporous Flexible Packages With and Without Restraining Plates

F2096-04 Standard Test Method for Detecting Gross Leaks in Medical Packaging by Internal Pressurization (Bubble Test)
F02.40 Package Integrity


F2391-05 Standard Test Method for Measuring Package and Seal Integrity Using Helium as the Tracer Gas
F02.40 Package Integrity

F2714-08 Standard Test Method for Oxygen Headspace Analysis of Packages Using Fluorescent Decay

WK 19529 Non Destructive Pressure or Vacuum Decay Leak Test for Sealed Products or Packages
F02.50 Package Design and Development


F17-08 Standard Terminology Relating to Flexible Barrier Packaging
   See also WK10241 proposed revision
   See also WK15597 proposed revision

F99-07 Standard Practice for Preparation of Flexible Barrier Material Specifications

F02.50 Package Design and Development

F1980-07 Standard Guide for Accelerated Aging of Sterile Medical Device Packages

F2097-08 Standard Guide for Design and Evaluation of Primary Packaging for Medical Products
See also WK 21544 Proposed Revision

F2559-06 Standard Guide for Writing a Specification for Sterilizable Peel Pouches

WK 17187 Test Method for Seal Strength Measurements of Flexible Lids to Cups with Curvilinear and Rectangular Seals
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**FIG. 1** Summary of Test Methods for Medical Packaging Design and Evaluation
New Activities

Dye Penetration Dipping

Pinholes in Films (How to Measure)

Abrasion Resistance

Head Space Analysis
ASTM International TC Meetings Event

Prague | 5-9 October 2009

Participating ASTM Committees:

D24 on Carbon Black | E55 on Manufacture of Pharmaceutical Products | F02 on Flexible Barrier Packaging | F40 on Declarable Substances in Materials

Register

Online registration for the Prague meetings will be available through the ASTM Web site beginning April 1. Check back soon for more information, including additional hotel information and meeting schedules.
Fall Meeting Prague

Oct. 6-8, 2009

ASTM F-2 Fall Meeting w/ Task Groups

One Day Medical Device Packaging Workshop

Included in Workshop is One Year ASTM Membership &
Medical Device Test Method Compendium
Committee D-10 Scope
www.astm.org

The promotion of knowledge in, and the development of standards for packaging

Standards shall include terminology, practices, test methods, specifications, guides, and classifications (including dimensions)
Committee D-10 Scope

This work specifically includes:

Defining materials and processes that consider both item and consumer impact; the result being a package and packaged product that are acceptable for delivery

Generating closely related shipping systems design criteria

Developing materials handling standards related to distribution, including measurement of the packaging environment

Assessing the suitability of packaging related standards through round-robin laboratory evaluations, quantitative testing and instrumentation applications, and

Establishing standards on reuse, recycling and disposal of materials related to packaging
Committee D-10
Revised Standards Activities

Revisions to D 4169-08

Scope: add sec. 1.2; “This practice does not include performance testing of packages for single parcel shipments (see practice D 7386)”

DC 13 revised to include Schedule ‘J’ for Concentrated Impacts per ASTM D6344

Add reference to D 7286

Revisions to DC 3 “Single Package Environment up to 100 lb. Changed to LTL trucking mode for description

No change in Schedules

Add Schedule ‘J’ for Concentrated Impacts
Committee D-10
Revised Standards Activities

New Performance Standard for ‘Single Parcel Delivery System’—D 7386

Approved last fall; needs additional revisions for clean-up and clarifications. (Revisions will be editorial)

New PSD vibration profiles based on recent research

Approval by FDA as a ‘consensus standard’ is pending review by FDA technical staff
Committee D-10
Revised Standards Activities

ASTM D 999-08 “Test Methods for Vibration Testing of Shipping Containers”

Revision to Method A1 and A2 (‘repetitive shock’ test)

Clarification on how to use metal shim to verify ‘lift-off’ of the container (sec. 5.3)

Rewording of procedure section for clarity-no technical changes
Committee D-10
Revised Standards Activities

RFID Standards - Subcommittee D10.18
Chair: Rob Clark  MSU School of Packaging


Committee D-10
Technical Activities

ASTM D3103, “Test Method for Thermal Insulation Quality of Packages”

Round Robin Testing in process (contact Linda Walker)
## Standards Reapprovals

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<thead>
<tr>
<th>Item No.</th>
<th>Sub No.</th>
<th>Item Vote</th>
<th>Approval Date</th>
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<td>APPROVAL OF D1596-97(2003) TEST METHOD FOR Dynamic Shock Cushioning Characteristics of Packaging Material WK22483 PDF (7K)</td>
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<td>Technical Contact: Changfeng Ge</td>
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<td>Technical Contact: Changfeng Ge</td>
<td><a href="mailto:CFGMET@RIT.EDU">CFGMET@RIT.EDU</a></td>
<td>(585) 475-5391</td>
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<td>Technical Contact: William I Kipp</td>
<td><a href="mailto:wikipp@comcast.net">wikipp@comcast.net</a></td>
<td>(650) 355-7211</td>
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<td>REAPPROVAL OF D1185-98A(2003) TEST METHODS FOR Pallets and Related Structures Employed in Materials Handling and Shipping WK21351 PDF (7K)</td>
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<td>Technical Contact: Chris P Guzowski</td>
<td><a href="mailto:cguzowski@kraft.com">cguzowski@kraft.com</a></td>
<td>(847) 646-3780</td>
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<td>Technical Contact: William I Kipp</td>
<td><a href="mailto:wikipp@comcast.net">wikipp@comcast.net</a></td>
<td>(650) 355-7211</td>
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<td>Technical Contact: Rick Roberti</td>
<td><a href="mailto:rick.roberti@testedandproven.com">rick.roberti@testedandproven.com</a></td>
<td>(732) 346-920</td>
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Standards Reapprovals

7 REAPPROVAL OF D5276-98(2004) TEST METHOD FOR Drop Test of Loaded Containers by Free Fall WK21128 PDF (7K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Rick Roberti
rick.roberti@testedandproven.com
(732) 346- 920  Affirmative

8 REAPPROVAL OF D6344-04 TEST METHOD FOR Concentrated Impacts to Transport Packages WK21127 PDF (7K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Richard M Thomas
RMTHOMAS@SMURFIT.COM
(630) 384-5244  Affirmative

9 REAPPROVAL OF D7030-04 TEST METHOD FOR Short Term Creep Performance of Corrugated Fiberboard Containers Under Constant Load Using a Compression Test Machine WK21126 PDF (7K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Perry Hock
info@ghtesting.com
(513) 870-0080  Affirmative

10 REAPPROVAL OF D4279-95(2003) TEST METHODS FOR Water Vapor Transmission of Shipping Containers --Constant and Cycle Methods WK21709 PDF (7K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Corey D Hensel
corey.hensel@testedandproven.com
(952) 941-9226  Affirmative

11 REVISION OF D3950-07 SPECIFICATION FOR Strapping, Nonmetallic (and Joining Methods) WK17562 PDF (144K)
AS INDICATED(SEE VOLUME 15.10)(CONCURRENT WITH .2500)
TECHNICAL CONTACT: Larry Ruud
LARRYR@SIGNODEPLASTICS.COM
(847) 657-4381  Affirmative

12 REVISION OF D3950-07 SPECIFICATION FOR Strapping, Nonmetallic (and Joining Methods) WK14993 PDF (48K)
SECTION 12 & FIGURES 1 & 2(SEE VOLUME 15.10)(CONCURRENT WITH .2500)
TECHNICAL CONTACT: Audrey Karass
akarass@caristrap.com
4506674700  Affirmative
Standards Reapprovals

13 REAPPROVAL OF D4649-03 GUIDE FOR Selection and Use of Stretch Wrap Films WK22409 PDF (7K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Peter Catlos
petecatlos@yahoo.com
(810) 300-3639  Affirmative

14 REVISION OF D4675-06E02 GUIDE FOR Selection and Use of Flat Strapping Materials WK14992 PDF (3.5M)
(SEE VOLUME 15.10)(CONCURRENT WITH .2500)
TECHNICAL CONTACT: Larry Ruud
LARRYR@SIGNODEPLASTICS.COM
(847) 657-4381  Affirmative

15 REAPPROVAL OF D5331-03 WITH EDITORIAL CHA TEST METHOD FOR Evaluation of Mechanical Handling of Unitized Loads Secured with Stretch Wrap Films WK21944 PDF (57K)
(SEE VOLUME 15.10)
TECHNICAL CONTACT: Peter Catlos
petecatlos@yahoo.com
(810) 300-3639  Affirmative

16 REVISION OF D5168-03 PRACTICE FOR Fabrication and Closure of Triple-Wall Corrugated Fiberboard Containers WK17993 PDF (360K)
(SEE VOLUME 15.10) 20.00 AFF. - .00 NEG. - 15.00 ABS.
TECHNICAL CONTACT: Richard C Lund
r-wlund@msn.com
(253) 848-9421  Affirmative

17 REVISION OF D3475-08 CLASSIFICATION OF Child-Resistant Packages WK21785 PDF (10K)
(SEE VOLUME 15.10)(CONCURRENT WITH .3100)
TECHNICAL CONTACT: Richard A Ward
RWARD@PERRITTLAB.COM
(609) 443-4849  Affirmative

18 REVISION OF D2063-91(2002) TEST METHODS FOR Measurement of Torque Retention for Packages with Continuous Thread Closures WK20548 PDF (64K)
(SEE VOLUME 15.10)(CONCURRENT WITH .3200)
TECHNICAL CONTACT: John P Moroze
moroze123@optonline.net
(609) 586-7718  Affirmative
Developments

Transport Packaging Forum, April 6-9, Las Vegas

D 10 Spring Meeting: April 19-22, Vancouver

ASTM Division III Meeting: May 12, ASTM Headquarters
Contact Information

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mltroedel@yahoo.com  
847-366-7625
Thank you for your time

Questions?