

Avery Dennison[®] UC 900 Ultimate Cast Series

Translucent Permanent Transparent Synthetic

(formerly: Translucent Permanent Kraft)

Revision: 3 Dated: 11/26/13

Uses:

Avery Dennison[®] UC 900 Ultimate Cast Translucent films are high performance, flexible, translucent cast vinyl films which are especially suited for architectural graphic applications involving flexible and rigid backlit signage and awnings, as well as window graphics. Avery Dennison[®] UC 900 Ultimate Cast Translucent films maintain consistent color under both transmitted and reflected lighting conditions and adhere to a wide variety of properly prepared substrates. UC 900 Ultimate Cast Translucent films may also be used with thermo-forming, backlit applications. Should be applied to flexible backlit scrim, glass, polycarbonates, and acrylics (should be tested prior to use)



Face: 2.3 mil (58 microns) cast film



Adhesive: Clear Permanent Acrylic



Liner: 3.0 mil Transparent Synthetic



Durability: Up to 9 years

Application Surfaces:

Flat.

Features:

- Available in Pantone[®] Color simulations
- Outstanding durability and outdoor performance
- PET liner for easy converting and wet application
- PET liner for smooth consistent finish
- Matte Finish
- Excellent conversion on CAD plotters
- Easy cutting & weeding
- Excellent dimensional stability
- Excellent UV, temperature, humidity, and salt-spray resistance
- Custom colors available (contact your sales representative)

Conversion:

- Thermal Die-Cutting
- Flat Bed Sign-Cut
- Drum Roller Sign-Cut
- Steel Rule Die-Cutting
- Thermal Transfer
- Thermoforming

Common Applications:

- Architectural Signage
- Directional Signage
- Outdoor Advertising

Product Data Sheet

Page 1 of 6



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Physical Characteristics:

Property	Value
Caliper, face	2.3 mil (58 microns)
Caliper, adhesive	1.0mil (25 µm)
Dimensional stability	<0.015"(0.4mm)
Tensile at Yield	4.0 - 8.0 lb/in (0.7-1.5 kg/cm)
Elongation	100% min.
Gloss	20
Adhesion: 15 min.	2.2 lbs/in (385 N/m)
24 hr.	3.0 lbs/in (525 N/m)
Flammability	Self Extinguishing
Shelf-Life	2 yrs from date on box (up to 2 years unprocessed, OR process within one year and apply within 1 year of processing)
Durability	Vertical Exposure Up to 9 years
Min. Application Temperature	40° F (4° C)
Service Temperature	-50° - 180°F (-45° - 82° C) (Reasonable range of temperatures which would be expected under normal environmental conditions).
Chemical resistance	Resistant to most mild acids, alkalis, and salt solutions.

Important:

Information on physical and chemical characteristics are based on tests believed to be reliable. The values are intended only as a source of information. This information is given without guaranty and do not constitute a warranty. The purchaser should independently determine, prior to use, the suitability of any material for their specific purpose. (Data represents average values where applicable, and is not intended for specification purposes)

Warranty:

All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either two years (or the period stated on the specific product information literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence.

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES, WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, OR OTHERWISE (EXCEPT AS TO TITLE), OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY AVERY DENNISON. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Product Data Sheet

Page 2 of 6



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Durability:

UC 900 Translucent Series Name	UC 900 Translucent Series Item #	UC 900 Translucent Series Name	UC 900 Translucent Series Item #
UC900-101-T White ■	9001T	UC900-667-T PANTONE® 274 C ★	9467T
UC900-181-T PANTONE® Process Black C ■	9081T	UC900-602-T PANTONE® 277 C ★	9502T
UC900-198-T PANTONE® 412 C ■	9298T	UC900-603-T PANTONE® 279 C ★	9503T
UC900-211-T PANTONE® 012 C ★	9111T	UC900-626-T PANTONE® 285 C ★	9526T
UC900-216-T PANTONE® 109 C ★	9113T	UC900-556-T PANTONE® 290 C ★ (Discontinued)	9556T
UC900-214-T PANTONE® 116 C ■	9114T	UC900-661-T PANTONE® 3005 C ★	9561T
UC900-243-T PANTONE® 1235 C ★	9143T	UC900-668-T PANTONE® 2945 C ★	9566T
UC900-361-T PANTONE® 1655 C ★	9161T	UC900-684-T PANTONE® 288 C ★	9584T
UC900-360-T Orange ■	9180T	UC900-686-T Cobalt Blue ★	9586T
UC900-218-T PANTONE® 7500 C ★	9217T	UC900-685-T PANTONE® 281 C ★	9588T
UC900-254-T Vivid Gold ▲	9248T	UC900-691-T Twilight Blue ★	9591T
UC900-951-T PANTONE® 155 C ★	9251T	UC900-692-T Real Blue ■	9592T
UC900-952-T PANTONE® 466 C ★	9252T	UC900-693-T PANTONE® 2747 C ★	9593T
UC900-275-T PANTONE® 4495 C ★ (Discontinued)	9275T	UC900-619-T PANTONE® 321 C ★	9619T
UC900-408-T PANTONE® 186 C ★	9308T	UC900-722-T PANTONE® 322 C ★	9622T
UC900-421-T PANTONE® 485 C ★	9316T	UC900-726-T PANTONE® 354 C ★	9626T
UC900-424-T Light Tomato Red ■	9324T	UC900-734-T PANTONE® 375 C ★	9634T
UC900-427-T PANTONE® 200 C ★	9327T	UC900-741-T Real Green ■	9641T
UC900-430-T Cardinal Red ■ (name change)			
UC900-434-T Vivid Red ■ (no change in color)	9330T	UC900-762-T PANTONE® 355 C ★	9662T
UC900-440-T Red ■	9340T	UC900-776-T PANTONE® 7483 C ★	9676T
UC900-443-T Poinsettia ★ (Discontinued)	9343T	UC900-783-T PANTONE® 349 C ★	9683T
UC900-468-T PANTONE® 188 C ★	9368T	UC900-792-T Holly Green ★	9692T
UC900-470-T Burgundy ★	9370T	UC900-811-T PANTONE® 427 C ■	9011T
UC900-516-T PANTONE® 214 C ✖	9416T	UC900-837-T PANTONE® 430 C ■	9047T
UC900-546-T PANTONE® 2622 C ★	9446T	UC900-869-T PANTONE® 877 C ▲	9069T
UC900-560-T PANTONE® 266 C ✖	9460T		

Comments:

▲ - 3 yrs durability ✖ - 6 yrs durability ★ - 7 yrs durability ■ - 9 yrs durability

NOTE: Some color fade may occur in severe environmental areas. Reference IB 1.30 for durability guidelines. Duranodic and Black are effectively opaque in most signage application.

Durability:

Durability is based on vertical exposure, unless otherwise notated. Definitions for exposure angles, and Zone Charts, which may reduce the overall durability of the product are available in Instruction Bulletin 1.30; [Durability of Films](#). Materials applied in horizontal applications in the USA desert southwest, or Zone 3 in the charts will have zero years durability coverage. Otherwise durability is shown above in the "Physical Characteristics" section of this data sheet.

Other factors which may directly affect durability of this product series is; surface texture, surface preparation, application methods, angle and direction of sun, environmental conditions, cleaning & maintenance. Stationary applications facing West or Southwest in the Northern Hemisphere (West or Northwest in Southern Hemisphere) will have a (2) year durability reduction.

Dimensional stability:

Is measured on a 6" x 6" (150 x 150 mm) aluminum panel to which a specimen has been applied; 72 hours after application the panel is scored in a cross pattern, exposed for 48 hours to 150 °F (65 °C), after which the shrinkage is measured.

Product Data Sheet

Page 3 of 6



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Adhesion:

(FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel panel, 24 hours after the specimen has been applied under standardized conditions. Initial adhesion is measured 15 minutes after application of the specimen.

Flammability:

A specimen applied to aluminum is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.

Temperature range:

A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.

Chemical Resistance:

All chemical tests are conducted with test panels to which a specimen has been applied for 72 hours, after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.

Accelerated Aging:

No negative impact on films performance, wherein the color is within industry standards for Delta Σ shift. Material is applied to panels, and placed in a Xenon Arc Artificial Weatherometer, and exposed under conditions of SAE J1960, for 2000 hours. Some color fade may occur in severe environmental areas. Reference IB 1.30 for durability guidelines.

Color Matching:

Fast turnaround service is offered for projects where specific color needs cannot be obtained from the broad offering of stock colors. Matches can be made to Pantone[®] color references, or by submitting a small reference sample (minimum 4" x 4")For match requirements, contact your Avery Dennison[®] representative.

Pantone[®] Cross Reference:

Avery Dennison[®] has been certified to produce custom color films matching Pantone color number references. A range of pre-matched Pantone colors are available for ease of use for designers and signmakers. Custom color matches are available by referencing the Pantone color system. For match requirements, contact your Avery Dennison[®] representative.

Absence of banned substances:

Avery Dennison[®] Black, White, and Clear SuperCast films meet the following European Directives.

EU Directive 94/62 on packaging and packaging waste Article 11 : Max. sum of concentration levels of lead, cadmium, mercury and hexavalent chromium: < 100 ppm.

EU Directive 2002/96/EC on restrictions of use of hazardous substances in electrical and electronic equipment Article 4.1: no contents of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenylethers (PBDE).

EU Directive 2000/53/EC on end-of life of vehicles article 4.2.(a) : no contents of lead, mercury, cadmium or hexavalent chromium.

Product Data Sheet

Page 4 of 6



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Definitions:

- **“Adhesion”** (FTM-1, FINAT) is measured by peeling a specimen at a 180° angle from a stainless steel panel, 24 hours after the specimen has been applied under standardized conditions. Initial adhesion is measured 15 minutes after application of the specimen.
- **“Flammability”** A specimen applied to aluminum is subjected to the flame of a gas burner for 15 seconds. The film should stop burning within 15 seconds after removal from the flame.
- **“Temperature range”** A specimen applied to stainless steel is exposed at high and low temperatures and brought back to room temperature. 1 hour after exposure the specimen is examined for any deterioration. Note: Prolonged exposure to high and low temperatures in the presence of chemicals such as solvents, acids, dyes, etc. may eventually cause deterioration.
- **“Chemical Resistance”** All chemical tests are conducted with test panels to which a specimen has been applied. 72 hours after application the panels are immersed in the test fluid for the given test period. 1 hour after removing the panel from the fluid, the specimen is examined for any deterioration.
- **“Outdoor Durability”** means that the Product in a finished graphic situated outdoors, subject to the limitations herein and Avery Dennison[®] Product Data Sheets and Instructional Bulletins, and applied to recommended surfaces, will not deteriorate excessively such that the finished graphic is ineffective for its advertising or identification purpose(s) when viewed under normal conditions from the intended viewing distance, due solely to a defect in the Product in manufacturing or workmanship. Outdoor Durability is based on normal middle European and central North American outdoor exposure conditions and application to recommended surfaces. Actual performance life will depend on a variety of factors, including but not limited to substrate preparation, exposure conditions and maintenance of the Product and finished graphic. In case of finished graphics in areas of high temperatures or humidity, in industrially polluted areas or other areas with air laden particulate matter, and/or in high altitudes, Outdoor Durability will be reduced and the warranty period will be decreased accordingly. Avery Dennison[®] [Instructional Bulletin #1.30](#) Durability of Avery Dennison[®] Films sets forth the durability period in the regional service area of your graphics.
- **“Indoor Durability”** means that the Product in a finished graphic situated within the interior of a building without direct exposure to sunlight and applied to recommended surfaces, will not deteriorate excessively such that the finished graphic is ineffective for its advertising or identification purpose(s) when viewed under normal conditions from the intended viewing distance, due solely to a defect in the Product in manufacturing or workmanship. The warranty does not extend to the use of the Product or finished graphic as wood or fabric replacement films or safety and security window films.
- **“Vertical Exposure”** means that the face of the finished graphic is $\pm 10^\circ$ from vertical. Please consult the Avery Dennison[®] [Instructional Bulletin #1.30](#) Durability of Avery Dennison[®] Films for full details.
- **“Non-Vertical Exposure”** means that the face of the finished graphic is greater than 10° from vertical and greater than 5° from horizontal. **These films have reduced durability.**
- **“Horizontal Exposure”** means the face of the finished graphic is 85° to 90° from vertical. **Films are not warranted for this exposure.**
- **“Flat surfaces”** means a two dimensional flat surface without protruding objects.

Related Literature:

The following Avery Dennison[®] literature will provide complete information to the user for proper application, storage, and other requirements and is available upon request from your Avery Dennison[®] representative or from the Avery Dennison website (www.na.averygraphic.com).

Product Data Sheet

Page 5 of 6



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Document Title	Reference Number
Substrate Cleaning and Preparation	Instructional Bulletin # 1.10
Storage, Maintenance, and Cleaning of PVC Films	Instructional Bulletin # 1.20
Durability of Avery Dennison® Films	Instructional Bulletin # 1.30
Converting Tips for Sign Films	Instructional Bulletin # 2.10
Thermoforming of Translucent Films	Instructional Bulletin # 2.20
Applying Translucent Films to Flex Face	Instructional Bulletin # 4.01

Revisions are italicized

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Product Data Sheet

Page 6 of 6



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