



ILC Texture 23

Description

ILC Texture is a decorative based capping film for lamination to plastic sheet or roll stock for flat fabrication and thermoforming applications. ILC Texture has excellent weathering properties, outstanding DOI, low orange peel, excellent abrasion resistance, and resistance to a wide variety of chemicals.

Application and Processing

ILC Texture can be used in a wide variety of exterior and interior applications such as automotive, heavy truck, RV, marine, signage, building & construction, consumer electronics, and appliances. ILC Texture can be laminated to thermoplastics such as ABS, PC and PMMA.

ILC Texture can be processed using typical plastics processing technologies such as heat bending, thermoforming and routing.

Physical Properties

Film Thickness: 3.0 mils total

Substrate Gauges: .010 to .250 mils

Width: Max 24"

Color: Custom colors and designs

Performance Properties

(A) Thickness of layers - the specimen (cutting approximately 1.0in x 1.0in from the original sample) measure thickness and an average thickness was calculated.

(B) Thickness of layers - the specimen was prepared (2.5cm x 2.5cm) from the original sample and mounted in epoxy resin to grind the polish.

| Properties | Test Conditions | Result |
|---|--|------------------------|
| Appearance | Specimens were subjected to instrumental color & gloss measurements. Shall match the Master. | No detrimental effects |
| Adhesions | Specimens exposed and the surface was brushed before a piece of tape was adhered over grid. Specimens were then visually evaluated. | Pass |
| Water resistance (Exposure) | Specimens were immersed completely in 32°C water bath. After 96 hours, they were removed from water, dried with clean paper towel and visually evaluated. | Pass |
| Water resistance (Adhesion) | Specimens were immersed completely in 32°C water bath. After 96 hours, perform same test as Adhesions (above). | Pass |
| Long Term Heat Exposure (Exposure) | Specimens were subjected to 168 hours of exposure at 80°C, 90°C, 100°C, respectively, in air circulating oven. After exposure, they were visually evaluated for any detrimental effects. | Pass |



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TECHNICAL DATA SHEET

| Properties | Test Conditions | Result |
|--|---|------------------------|
| Resistance to Exterior Weathering | QUV Accelerated Weathering Tester/ UVA-340EL Lamps. 2,000 hours continuous UV/ moisture exposure | Pass |
| Long Term Heat Exposure (Adhesion) | After long term heat exposure, 24 h water resistance, followed by perform same test as Adhesions . | Pass |
| Short Term Heat Exposure(Exposure) | Specimens were exposed to 1 cycle of the following: 5 hours: -30 ±2°C 30 minutes: 23 ±2° & 50 ± 5%RH 5 hours: Indicated High Temperature±2°C 30 minutes: 23 ± 2°C & 50 ± 5% RH 2 hours: 50 ± 2°C & 95± 5% RH 30 minutes: 23 ± 2°C & 50 ± 5%RH 5 hours: -30 ± 2°C 30 minutes: 23 ± 2°C & 50 ± 5% RH 5 hours: Indicated High Temperature±2°C | Pass |
| Short Term Heat Exposure (Adhesion) | After short term heat exposure, 24 hr water resistance, followed by perform the same test as Adhesions . | Pass |
| Resistance to Interior Weathering (A) (601.6kJ/m² & 977.6kJ/m²) | Specimen's initial instrumental color and gloss measurements were recorded. They were subjected to Xenon exposure. Final instrument color and gloss measurements were recorded after exposure, and they were evaluated and rated. | Pass |
| Resistance to Interior Weathering (B) (1240kJ/m² & 2500kJ/m²) | Specimen's initial instrumental color and gloss measurements were recorded. They were subjected to Xenon exposure. Final instrument color and gloss measurements were recorded after exposure, and they were evaluated and rated. | Pass |
| Resistance to Interior Weathering (Adhesion) | After Resistance to Interior Weathering, perform same test as Adhesions . | Pass |
| High Performance Paint Adhesion | The samples were immersed for 4 hours in water at 38°C. After being removed from the water, an X was cut into the specimens using a knife, and they were put in a freezer at -29°C for a minimum of 3 hours. Within 30 seconds of removal from freezer, they were blasted with steam from 2-3 inches at 45° angle for 30 seconds. | No detrimental effects |
| Abrasion Resistance | Specimens were installed on the Taber Abraser. Prior to testing, wheels were resurfaced against S-11 abrasive paper. Following completion of 500 and 750 and 1000 cycles, specimens were visually evaluated. | Pass |
| Resistance to Scuffing | Specimens were installed on the Taber Abraser. They were subjected to 1000 cycles of scuffing using the Scuff apparatus and 900g weight with scuff head. No evidence of lifting, peeling or excessive scuffing or discoloration to the surface. | No flaking or peeling |



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| Properties | Test Conditions | Result |
|--|--|--------------------------------|
| Resistance to Marring | Specimens were installed on the Taber Abraser. They were subjected to 10 cycles of scuffing using the Scuff apparatus and 900g weight with scuff head. | No gloss loss or discoloration |
| Crocking | Specimen was mounted on the crock meter. One specimen was tested using a dry crock cloth, while the other specimen was tested with crock cloth wetted with DI water. Each specimen was subjected to 10 back and forth strokes; afterward the cloths were visually evaluated for change in color. | Pass |
| Resistance to Scratching | Specimen were mounted onto a five finger scratch apparatus that was equipped with 1mm tips. The fingers were loaded with 2N, 3N, 7N, 6N and 10N loads. | Pass |
| Resistance to Water and Soap Spotting | One specimen was subjected to artificial weathering exposure, per SAE J1885/SAE J1960 modified, for 16 hours. After this exposure, a 25mm ID polyethylene washer was placed on either end of the specimen filled with 2ml of soap & distilled water. The specimen was then removed, rinsed with tap water, visually evaluated and the test area was scraped using a thumbnail with firm pressure to check for softening of the coating. | Pass |
| Soiling and Cleanability | Specimens were soiled, exposed for 1 hour, before excess soiling agent (grease & coffee) was removed. Specimens were then cleaned with the indicated cleaning agent with a damp white cotton flannel cloth. The cleaning agent was sprayed onto the specimen and allowed to sit on each specimen before cleaning with the cloth. Specimens were wiped dry with clean cotton flannel cloth, then air dried for 24 hours before being evaluated. | Pass |
| Resistance to Window Cleaner Spotting | 0/25ml of "Original Windex" was applied in the center of a non-reactive O-ring. After 1 hour of exposure at room temperature, the excess chemical was removed by carefully dabbing with gauze. Specimen was evaluated for staining and color change and any other detrimental effects. | Pass |
| Resistance to Cleaning Agents | Specimens were mounted to the bottom base of the crock meter. Two crock cloths were prepared, in the specified direction to the upper contact pin. The rubbing arm of required mass was then gently lowered onto the specimen's surface. The specimen was cycled to the required number of cycles, before being evaluated. | Pass |



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|---|--|--------|
| Resistance to Suntan Lotion and Insect Repellent | A piece of crock cloth was placed at the middle of each specimen. On both of the specimens, 0.05g of either sunscreen or insect repellent was applied to the crock cloths. One specimen was left at room temperature for 24 hours, while the specimen was placed in an oven set at 74°C for 1 hour. After each test, the specimens were wiped clean with a wet cloth and evaluated. | Pass |
| Resistance to Dynamic Exudation | <u>Condensing Humidity</u> : The specimen was exposed to condensing humidity (43°C/100% R.H.), 168 hours. Heat Aging: The specimen was exposed to heat aging at 45°C for 7 days. The system shall resist migration of ultraviolet light and heat stabilizers, plasticizers, or any other substance that will exude to the surface of the tested specimen. | Pass |
| Fogging (A) | Specimens were preconditioned, each specimen was placed into a beaker then covered with a pre-read glass plate. The beakers were heated in a Hart Fog Test Chamber. The gloss of the plate was measured at the below time interval. The fogging number was then determined. Preconditioning: 24 Hours at 23 ±2° & 50 ± 5%RH Heating Temperature: 100° C Heating Duration: 3 Hours Cooling Plate Temperature: 21° C Post Conditioning Evaluations: 16 hours Fogging number = (Rf / Ro) x 100 R0: Gloss Reading Before Fogging Test Rf: Gloss Reading After Fogging Test | Pass |
| Fogging (B) | Specimens were preconditioned, each specimen was placed into a beaker then covered with a pre-read glass plate. The beakers were heated in a Hart Fog Test Chamber. The gloss of the glass plates was measured at the below time interval. Preconditioning:24 Hours at 23±2°C & 50±5% R.HHeating Temperature:110°CHeating Duration: 6 HoursCooling Plate Temperature:21°CPost Conditioning Evaluations:16 Hours | Pass |



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|--------------|---|--------|
| Flammability | The sample was tested as received with wire supports. Due to the size of the sample, the timing line was moved from 38mm to 30mm. | Pass |
| Odor | The variant specimens were prepared and subjected to the 3 conditions. 5 panelists smelled the jars and the mean results were reported. | Pass |

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IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given is subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.