

Testing Report Request Number: 99716

Phone: (812) 428-9100 Page: Page 1 of 26 Request Date: 12/13/06 Complete Date: 11/19/07 Report Rev Date: 11/19/07

Lot/Batch #

Chemist: GARY M. WILLIAMS

Substrate:

Test Case Criteria (Combination Number: 1)

ABS/POLYCARBONATE DOW CHEMICAL PULSE 2000

Color: **GRAY**

SINGLE BIAS BL, HYDR Base Coat:

379S21654B HIGH GLOSS POLYURETHANE HYDROGRAPHICS CLEAR Top Coat (UV):

Research Ref Number: SINGLE BIAS BLACK PATTERN HYDROGRAPHICS

Panels: **CORVETTE CONSOLE** Parts Sprayed: 12/1/06

Coating Applied At: **SPECTRUM**

Tests	Results	Requirements	Spec Rev Date	
Xenon Arc (SAE J1885) x 1240.8 Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873832	Pass	No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Post Xenon Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Arizona 51°So Azimuth Tracking UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873833		No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2	12/1/01
	Pass			
60° Gloss	86.0/90.8	Report Results		
Delta E	0.50	Report Results		
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)

Date Printed: 10/25/2010 07:35 Test reports contain only findings and results based on specific test procedures and standards listed. They are not intended to constitute a recommendation, endorsement or certification of the product or material tested.



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 2 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873834	Pass Satisfactory	Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873835	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873836	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873837	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873838	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 3 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873839	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.	
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873840	Dana 750 musles	There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873841	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1/01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873842	Pass	No Defects	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion	Pass 100	99% Retention	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 4 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873843, 873844, 873845			GM7455M TYPE D,GRADE 1	12/1/01
Appearance - 16 hr recovery	Not Applicable	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diamete or any visual signs of crystallinity when viewed at 40 magnification.		
Fogging Number - 16 Hour recovery	Not Applicable	60% Minimun		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873846	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873847	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873848	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873849	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873850	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 5 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85°C x 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873851	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2 12/1/01
Humidity @38°C x 96 Hrs. (VISUAL APPEARANCE ONLY) GM4465P Panel ID: 873852	, Pass No Change	There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2 12/1/01
Adhesion Test Not Required	Not Applicable	Not Applicable	
Xenon Arc (SAE J1885) x 1240.8 Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873853	Pass	No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2 12/1/01
Post Xenon Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2 12/1/01
Arizona 51°So Azimuth Tracking UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873854		No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2 12/1/01
60° Gloss	Pass 90.8/90.8	Report Results	
Delta E	0.87	Report Results	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 6 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2 12/1/01
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873855	Pass Satisfactory	Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873856	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873857	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873858	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873859	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 7 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873860	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.	
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873861	Dana 750 musles	There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873862	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1/01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873863	Pass	No Defects	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion	Pass 100	99% Retention	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 8 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873864, 873865, 873866			GM7455M TYPE D,GRADE 2	12/1/01
Appearance - 16 hr recovery	Not Applicable	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diameter or any visual signs of crystallinity when viewed at 40% magnification.		
Fogging Number - 16 Hour recovery	Not Applicable	60% Minimun		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873867	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873868	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873869	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873870	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873871	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 9 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85° 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873872		There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01
Humidity @38°C x 96 Hrs. (VIS APPEARANCE ONLY) GM4465P Panel ID: 873873	UAL Pass No Change	There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Adhesion Test Not Required		Not Applicable		
	Not Applicable			
Xenon Arc (SAE J1885) x 1240. Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873874	8	No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
	Pass			
Post Xenon Crosshatch Adhesio (11 x 11 with 1mm Spacing) GM9071P	n Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Arizona 51°So Azimuth Trackin UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873875	g	No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2	12/1/01
	Pass			
60° Gloss	92.6/91.6	Report Results		
Delta E	0.63	Report Results		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 10 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results		Requirements	Spec Rev Date	
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100		99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873876	Pass Satis		Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass 5		AATCC 4Min.		
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873877	Pass Satis	factory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass 5		AATCC 4Min.		
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873878	Pass Satis	factory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass 5		AATCC 4Min.		
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873879	Pass Satis	factory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass 5		AATCC 4Min.		
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873880	Pass Satis	factory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass 5		AATCC 4Min.		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 11 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873881	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.	
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873882		There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873883	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1/01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873884		No Defects	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion	Pass 100	99% Retention	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 12 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873885, 873886, 873887			GM7455M TYPE D,GRADE 2	12/1/01
Appearance - 16 hr recovery Fogging Number - 16 Hour	Pass 80	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diameter or any visual signs of crystallinity when viewed at 40X magnification.		
recovery	1455 00	oo a miiitaan		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873888	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873889	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873890	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873891	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873892	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 13 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85°C x 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873893		There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2 12/1/01
Humidity @38°C x 96 Hrs. (VISUAL APPEARANCE ONLY) GM4465P Panel ID: 873894		There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2 12/1/01
Adhesion Test Not Required	Not Applicable	Not Applicable	



Phone: (812) 428-9100
Page: Page 14 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Lot/Batch #

Test Case Criteria (Combination Number: 2)

ABS/POLYCARBONATE DOW CHEMICAL PULSE 2000

Color: GRAY

Substrate:

Base Coat: CYBER CARBON GRY HYD

Top Coat (UV): 379S21654B HIGH GLOSS POLYURETHANE HYDROGRAPHICS CLEAR

Research Ref Number: CYBER CARBON GRAY PATTERN HYDROGRAPHICS

Panels: CORVETTE CONSOLE Parts Sprayed: 12/1/06

Coating Applied At: SPECTRUM

Tests	Results	Requirements	Spec Rev Date	
Xenon Arc (SAE J1885) x 1240.8 Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873895	Pass	No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Post Xenon Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Arizona 51°So Azimuth Tracking UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873896		No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2	12/1/01
600 Glass	Pass	Devent Develt		
60° Gloss Delta E	92.0/91.2	Report Results Report Results		
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 15 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Result	S	Requirements	Spec Rev Date	
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873897	Pass	Satisfactory	Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass	5	AATCC 4Min.		
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873898	Pass	Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass	5	AATCC 4Min.		
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873899	Pass	Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass	5	AATCC 4Min.		
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873900	Pass	Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass	5	AATCC 4Min.		
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873901	Pass	Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2	12/1/01
AATCC Chromatic Transfer Scale	Pass	5	AATCC 4Min.		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 16 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873902	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.	
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873903		There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873904	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1/01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873905		No Defects	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion	Pass 100	99% Retention	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 17 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873906, 873907, 873908			GM7455M TYPE D,GRADE 2	12/1/01
Appearance - 16 hr recovery	Not Applicable	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diameter or any visual signs of crystallinity when viewed at 40X magnification.		
Fogging Number - 16 Hour recovery	Not Applicable	60% Minimun		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873909	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873910	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873911	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873912	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873913	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 18 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85°C 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873914	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01
Humidity @38°C x 96 Hrs. (VISUAPPEARANCE ONLY) GM4465P Panel ID: 873915	AI. Pass No Change	There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Adhesion Test Not Required	Not Applicable	Not Applicable		
Xenon Arc (SAE J1885) x 1240.8 Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873916		No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Post Xenon Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Arizona 51°So Azimuth Tracking UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873917		No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2	12/1/01
	Pass			
60° Gloss	92.2/89.9	Report Results		
Delta E	0.41	Report Results		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 19 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2 12/1/0	01
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873918	Pass Satisfactory	Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2 12/1/0	01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.		
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873919	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/0	01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.		
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873920	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/0	01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.		
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873921	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/0	01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.		
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873922	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/0	01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 20 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873923	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1	./01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.		
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873924		There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1	./01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873925	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1	./01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873926		No Defects	GM7455M TYPE D,GRADE 2 12/1	./01
Crosshatch Adhesion	Pass 100	99% Retention		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 21 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873927, 873928, 873928			GM7455M TYPE D,GRADE 1	12/1/01
Appearance - 16 hr recovery	Not Applicable	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diameter or any visual signs of crystallinity when viewed at 40X magnification.		
Fogging Number - 16 Hour recovery	Not Applicable	60% Minimun		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873930	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873931	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873932	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873933	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873934	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 22 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85°C 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873935	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01
Humidity @38°C x 96 Hrs. (VISUA APPEARANCE ONLY) GM4465P Panel ID: 873936	AL Pass No Change	There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Adhesion Test Not Required	Not Applicable	Not Applicable		
Xenon Arc (SAE J1885) x 1240.8 Kjs. Check Appearance SAE J1885-VISUAL APP. Panel ID: 873937		No objectionable surface deterioration, loss of adhesion between layers, or objectionable color or gloss change.	GM7455M TYPE D,GRADE 2	12/1/01
Post Xenon Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2	12/1/01
Arizona 51°So Azimuth Tracking UG-TSTL-XXX (102°C) x 100000 SASR Langleys GM9538P Panel ID: 873938		No surface tackiness, loss of adhesion, objectionable color or gloss change, blooming, blistering, or other objectionable change in appearance.	GM7455M TYPE D,GRADE 2	12/1/01
	Pass			
60° Gloss	90.5/90.4	Report Results		
Delta E	0.27	Report Results		

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 23 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Post Arizona Crosshatch Adhesion (11 x 11 with 1mm Spacing) GM9071P	Pass 100	99% Retention	GM7455M TYPE D,GRADE 2 12/1/01
Windex x 10 Double Rubs (Apply to panel for 1 minute then Rub) GM9900P Panel ID: 873939	Pass Satisfactory	Satisfactory: Slight or No Soiling, Staining or Change in Appearance.	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Fantastik x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873940	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Cleaner x 10 Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873941	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Armor All Protectant x 10Double Rubs (Apply on Panel for 1 minute then Rub) GM9900P Panel ID: 873942	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	
Capture Carpet Cleaner x 10Double Rubs(Apply on Panel for 1 Minute then Rub) GM9900P Panel ID: 873943	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transfer Scale	Pass 5	AATCC 4Min.	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 24 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Formula 409 x 10 Double Rubs (Apply to panel for 1 minute then rub) GM9900P Panel ID: 873944	Pass Satisfactory	Satisfactory	GM7455M TYPE D,GRADE 2 12/1/01
AATCC Chromatic Transference Scale	Pass 5	AATCC 4 Min.	
Taber Abrasion x 750 cycles (CS17 Wheels, 1000 gram load) ASTM D 4060 Panel ID: 873945	Dana 750 muslas	There shall be no removal of pattern.	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion (11 X 11, 1 mm spacing) GM9071P Panel ID: 873946	Pass 750 cycles Pass 100	99% Retention, Brittleness, of the topcoat, as evidence by chipping, or flaking while scribing the test lines shall be cause for rejection.	GM7455M TYPE D,GRADE 2 12/1/01
Water Immersion @38°C x 2 Hrs. (10 min. Recovery) Post Crosshatch ASTM D870-GM7455M Panel ID: 873947	Pass	No Defects	GM7455M TYPE D,GRADE 2 12/1/01
Crosshatch Adhesion	Pass 100	99% Retention	

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 25 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date	<u> </u>
Fogging test- Bath Temp. 102°C and Cooling Plate 38°C x 6 Hours - Post 16 hr recovery (40X Picture of Fog Plate) SAE J1756-GM7455M Panel ID: 873948, 873949, 873950			GM7455M TYPE D,GRADE 2	12/1/01
Appearance - 16 hr recovery	Pass	No Residue that forms a transparent film, discernibile droplets (>/= 0.50mm in diameter or any visual signs of crystallinity when viewed at 40X magnification.		
Fogging Number - 16 Hour recovery	Pass 76	60% Minimun		
Acid Perspiration x 24 Hrs. GM9517P Panel ID: 873951	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Alkaline Perspiration x 24 Hrs. GM9517P Panel ID: 873952	Pass 1	No Objectionable Discoloration	GM7455M TYPE D,GRADE 2	12/1/01
Scuff & Mar Resistance 750 gram load GM9150P Panel ID: 873953	Pass Satisfactory	No more than slight marring	GM7455M TYPE D,GRADE 2	12/1/01
Thumbnail Hardness GM9507P Panel ID: 873954	Pass not marred	Not Marred	GM7455M TYPE D,GRADE 2	12/1/01
Oven aging @102°C x 7 days (Apply GM3807M Tape (3M-24S56 Tape) before test then remove after allowing to recover to room temperature) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873955	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2	12/1/01

Results Confirmed By: ERIK M. HESS (TEST LAB LEAD SPECIALIST)



Testing Report Request Number: 99716 Phone: (812) 428-9100
Page: Page 26 of 26
Request Date: 12/13/06
Complete Date: 11/19/07
Report Rev Date: 11/19/07

Tests	Results	Requirements	Spec Rev Date
Cycle Test GM9505P "M" x 2 cycles (Before test apply GM3807M tape (3M-24S56 Tape) then remove after recovery to RT) Cycle = (Humidity @35C & 95%RH x 16 Hrs, RT x 2Hrs,85°C : 16Hrs, RT x 2 Hrs, -30°C x 4 Hrs, RT x 2 Hrs) GM7455M-TAPE-COMPAT GR 2 Panel ID: 873956	Pass No Change	There shall be no objectionable change in appearance following removal of tape.	GM7455M TYPE D,GRADE 2 12/1/01
Humidity @38°C x 96 Hrs. (VISUA APPEARANCE ONLY) GM4465P Panel ID: 873957	Pass No Change	There shall be no evidence of blistering, water spotting, or gloss change.	GM7455M TYPE D,GRADE 2 12/1/01
Adhesion Test Not Required	Not Applicable	Not Applicable	