SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

P3T LAB – POLYURETHANE PHYSICAL PROPERTY TESTING LABORATORY
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MECHANICAL

Valid To: March 31, 2013 Certificate Number: 2050.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on polyurethane foam (flexible and semi-rigid), foam / fiberglass laminated boards and foam / fabric laminated rolls:

Test Description	**Test Method(s)**
Adhesion	ASTM D413 (A, B), D751 (45-48), D903, D1623; Chrysler 463LB-10-01; ESX 83220 (4.2.3); FLTM BN 151-05; GM 3602M (3.5), 9207P (3.1), 9986183 (3.2.2.1), 9986242 (3.6); GMW 14892 (3.1.5); HES D6506-00 (5.24); Honda 98M-8320Z-S84-0000 (5.6); NES 87000 NDS00; TSL 2105G (4.11), 5100G (4.5); TSM 7100G (4.13)
Aged Load Loss	ESB-M2D221-D (3.5); WSB-M2D402-A3 (3.6.12)
Aged Weight Loss	ESB-M2D297-A4 (3.13); WSB-M2D456-A
Air Permeability	AS 2282.14-1999; ASTM D737, D3574 (G); GM 251M (4.1); HES D6506-00 (5.17); ISO 9237; JIS K6400 (13); TSL 2107G (4.1); TSM 7100G (4.15)
Ash Content	AS 2282.16-1999; ASTM D586, D1278 (14-17)

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Test Description	Test Method(s)
Ball Rebound	AS 2282.11-1999; ASTM D3574 (H); ESB-M2D221 (3.17); ESX 83218 (4.15); FM-LOS-ST-10-6-01E (4.7.5); ISO 8307; JASO B 408-89 (6.7); JIS K6400 (9), K6401 (2); TS Tech Honda (4-6); TSM 7100G (4.7); Volvo STD 1024.1311; WSB-M2D402-A3 (3.6.16)
Cell Count	AS 2282.5-1999; WSD-M2D243-A2 (3.5.8), -A4 (3.5.8), -A5 (3.5.8); WSS-M2D491-A1 (3.5.8)
Circular Modulus	TSL 2104G (4.8)
Cleanability	Chrysler LP-463KC-04-01 (Procedures 1 and 2); GM 6291M (3.1.2)
Coefficient of Linear Thermal Expansion	TSM 5725G (7.3.2.3), 6729G (5.8)
Cold Cracking	WSS-M99-P29-A
Cold (Low Temperature) Flexibility	ESA M4D57-A (3.1.8), M4D200-B (3.1.8); ESF-M4D155-A (3.8); ESH-M4D291-F (3.1.8); FLTM BN 102-01; GM 251M (Table 1); Honda 7426Z-S3V-A000 (4.2.5); MS-AY 301, 303, 326, 349, 350, 355, 545; WSS M15P2-C, M99-P32-A
Cold Resistance	MS-AY 310
Compression and Recovery	ESB-M17H93-C2, C3, C4 (3.4.9)
Compression Deflection Stress	ISO 3386/1
Compression Force Deflection	ASTM D1056 (17-22, 34-41), D3574 (C); BS 4443-2-7; DIN 53577; ESX 8318 (4.4, 4.7); GME 60 283-5; ISO 844, 6916-2 (Annex B); JIS K6400 (Annex); Kia MS200-34 (4.7, 4.8); Renault D47 1003; TSM 6716G (4.8.2, 4.8.3), 7100G (4.3, 4.4)
Compression Load Deflection Change	ESB-M2D221 (3.5.2); FLTM BO 13-2

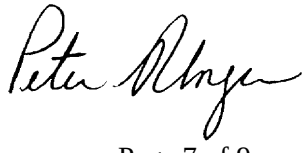
Test Description	Test Method(s)
Compression Ratio and Recovery	Honda 8330Z-SDCA-A000 (4.2.3)
Compression Set	AS 2282.9-1999; ASTM D1056 (49-55), D3574 (D); BS 4443-1-6A; DIN 53572; ESX 83218 (4.9); FLTM BN 115-07; FM-LOS-ST-10-6-01E (4.7.6); GME 60 283-4 (B2, C2, B4); Honda 7426Z-S3V-A000 (4.3.3); Hyundai MS-200-34; ISO 815-1, 1856 (A), 6916-2 (Annex D); JASO B 408-89 (6.9); JIS K6301 (10), K6400 (7); NES M0086 (8); Renault D45 1046; TS Tech Honda (4-8-1); TSM 5725G (7.1.2.3), 7100G (4.8); Volvo STD 1024.1111
Compressive Strength	ASTM D1621 (A); DIN 53421; FLTM BO 115-08; TSL 3608G (4.7); TSM 5725G (7.1), 6729G (5.6)
Conditioning	AS 2282.1-1999; ASTM D3574 (6); GMW 3221
Crease	GM 9201P; WSS M8P3 (3.29.1), M8P18 (3.13.2)
Curling	GM 2737M (5.9); GMW 4089; WSS-M8P18 (3.19)
Density	AS 2282.3 – .4-1999 ASTM C271/C271M, D1056 (61-66), D1622, D3574 (A); BS 4443-1-2; ESX 83218; FM-LOS-ST-10-6-01E (4.7.1); GME 60 283-1; HES D6506-00 (5.1); Honda 8330Z-SDCA-A000 (4.2.1), 7426Z-S3V-A000; Hyundai MS-200-34; ISO 845; JASO B 408-89 (6.1); JIS K6400 (5); NES M0086 (4); Renault D45 1045; TS Tech Honda (4-1); TSL 3608G, (4.3); TSM 5725G (7.1.2), 6729G, 7100G (4.1); Volvo STD 1026.6122

Test Description	Test Method(s)
Dimensional Stability	ASTM D2126 (*except -73°C*), D3574 (K); DIN 53424 (3); GMW 4217; Honda 98M-8320Z-S84-0000 (5.23); ISO 2796; MS DC600 (Table 3.8); NES D6505 (5.25, 5.26), M0086 (9); SAE J315 (3.15), J883; TSL 2104G (4.5); TSM 5725G (7.3), 6729G (5.7); WB 0001 (3.3.1); WSS-M2D494-A1 (3.5.1)
Dry Heat Aging	ASTM D3574 (K); Chrysler LP-463LB-13-01; ESX 83218 (4.4a); FIAT AUTO 9.03139 (2.12.2); GME 60 283-6; GMW 14358; Honda 98M-8320Z-S84-0000 (5.2); ISO 2440; Kia MS200-34 (4.4); TSM 7100G (4.11); Volvo STD 1027.2221
Effect of Liquids	ISO 1817 (7.2)
Environmental Aging	AS 2282.10-1999; ASTM D896; Chrysler 463LB-12-01; FIAT AUTO 9.03137 (2.14.2); GM 9200P, 9505P (Cycles: H, M, N, P); GMW 14124 (Cycles: H, M, N, P, Q, R, S, T, W); Honda 98M-8320Z-S84-0000 (5.4); ISO 2440; SK-M98D9736-A; TSM 5725G (3, 4, 5, 6); 6729G (5.6.2, 5.6.3, 5.6.4, 5.6.5, 5.6.6), 7100G (4.10); WSB-M2D403-A3 (3.4.7); WSS-M99-P29-A (3.4.7)
Fatigue Resistance by Roller Shear	AS 2282.12-1999 (Method B); ASTM D3574 (I2); FLTM BO 12-4
by Constant Force Pounding	ASTM D3574 (I3); ESX 83218 (4.10); Honda 7426Z-S3V-A000 (4.3.4), 8330Z-SDCA-A000; Hyundai MS-200-34 (4.10); ISO 3385; JASO B 408-89 (6.8); JIS K6382, K6400 (8); NES M0086 (11); TS Tech Honda (4-7);

Test Description	Test Method(s)
Fatigue Resistance (cont'd) by Static Force	AS 2282.12-1999 (Method A); ASTM D3574 (I1)
Flammability	CAL 117, Section A, Part I, Vertical Burn; CAL 117, Section D, Part II, Smoldering; TL 1011; UL 94 (*except section 10, Radiant Panel Flame Spread Test)*
Flammability, Horizontal Burn	ASTM D5132; CMVSS 302; DIN 75200; ES-E97B-1011014-AA; ESX 60410; FIAT AUTO STD 7-G200; FLTM BN 024-02; FM-LOS-ST-10-6-01E (4.7.7); FMVSS 302; GM 6090M, 9070P; GMW 3232; HES C206-99 (A), D6003; ISO 3795; JIS K6400 (12); Kia MS300-08; MES CF 050[a]; MS JP 9-4; NES M0094; Renault D45 1333; SAE J369; TSM 0500G, 0504G (A); Volvo STD 5031.1, 104-0001; VW TL 1010
Flexibility	ESB M2D221 (3.5.3), M2D243-A (3.3.8.2), M2D297-A4 (3.12), M4D113 (3.4.2), M4D262-C (3.4.2), M17H93 (3.4.3); FLTM BN 102-01, BO 012-01; WSB M2D402-A3 (3.6.13), M17H93-C7 (3.6.4)
Flexural Modulus	ASTM C203, D790 (A); DIN 53423; Honda 8320Z-SDA-0000 (6.17), 98M-8320Z-S84-0000 (5.21); ISO 178
Fogging	Chrysler LP-463DB-12-01; DIN 75201; GM 9305P; GMW 3235; FM-LOS-ST-10-6-01E (4.7.9); SAE J1756; TSM 0503G; Volvo STD 1027.2711, 1027.2719
Friability	ASTM C421

Gloss	ASTM D523
Test Description	Test Method(s)
Heat Aged Weight Loss	Honda 7426Z-S3V-A000 (4.2.6); MS-AY 352 (Table 1)
Heat and Humidity Discoloration Resistance	Chrysler LP-463LB-13-01; GM 9131P; NES 8700 NDS00 (12.1.1)
Humidity Aging	ASTM D2126 (except -73°C), D3574 (J1, J2); BS 4023:1975 (Appendix C); FLTM BO 12-1; GME 60 283-5E; GMW 14357; ISO 2440; JASO B 408-89 (6.11); JIS K6400 (2); Renault 1637; TS Tech Honda (4-8-2); TSM 7100G (4.8); Volvo STD 1027.2421
Hydrolytic Stability	GM 9231P
Hysteresis Loss of Foams	ASTM D3574 (X6); JASO B408-89 (6.3); JIS K6400 (Annex); TS Tech Honda (4-3-5); TSM 7100G (4.3)
Ignitability of Upholstered Furniture	SN EN 1021-1, -2
Indentation Force Deflection	AS 2282.8-1999; ASTM D3574 (B1, B2); BS 4443-2-7; DIN 53576, 53579 (T1); ESX 83218 (4.7); FIAT Auto STD 7.M8300 (D/1); FIAT MS 50430/02; FLTM BO 12-1; FM-LOS-ST-10-6-01E (4.7.2); GM 6084M (3.11); GME 60 283-7B; GMW 14359, 14363; ISO 2439, 3386/1; JASO B 408-89 (6.2); JIS K6382 (5.3), K6400; Kia MS200-34 (4.7, 4.8); MS DC-649 (Appendix A); MS DC69<S> (Table 2); NES M0086 (5); SAE J815; TS Tech Honda (4-2); TSM 6715G (4.8.2), 7100G (4.2, 4.3); Volvo STD 1024.3131

Test Description	Test Method(s)
Inverted Bending Test	ASTM 1388; TSL 2104G (4.9)
Linear Dimensions	AS 2282.02-1999; ISO 1923; Volvo STD 1022.2315
Load Height Change (Loss)	ESB M2D221 (3.5.1), M17H93-C1, C2, C3, C4, C5, C6 (3.4.2)
Low Temperature Load Compression	ESB M2D221 (3.6), M2D243-A (3.3.9), M4D262 (3.5)
Mass Per Area	ASTM D3776, D3887; FLTM BN 106-01; GM 2737M (5.1); GMW 3182; SAE J860; TSL 2104G (4.1)
Mildew Resistance	ESB-M2D297-A4 (3.11); GM 9128P; GMW 3259; WSS-M99-P32-A (3.15)
Moisture Uptake	WSS-M2D491-A1 (3.5.14)
Odor	ESB-M2D221 (3.8), M4D262 (3.7); ESX 62101, 32102, 83220; FLTM BO 131-01, BO 131-03; FM-LOS-ST-10-6-01E (4.7.8); GM 9130P; GME 60276; GMW 3205; Honda 7426Z-S3V-A000 (4.4.9), 8330Z-SDCA-A000 (4.2.10); MS DC634-B5, 300-34; SAE J1351; TS 202731; TSM 0505G; VDA 270
Open Cell Content	ASTM D6226
Polycarbonate Contamination	Honda 8330Z-SDCA-A000 (4.2.8)
Recoverability	MS DC600 (Table 3.9)
Recovery Time	ASTM 3574 (M)
Resistance to Blocking	GM 2737M (5.14)
Resistance to Heat	Chrysler 463LB-13-01
Resistance to Cold Cracking	GM 9140P (A); SAE J323 (A)



Test Description	Test Method(s)
Resistance to Deterioration	ESB M2D221-A, B, C (3.5), M4D113-C (3.4), M4D262-C; FLTM BO 12-1
Resistance to Humidity (Hot and Cold Cycling)	Chrysler LP-463LB-12-01
Resistance to Steaming	Chrysler LP-463KC-15-01
Rust Acceleration Test	TSL 2106G (4.12)
Sag	Honda 8320Z-SDA-0000 (6.18), 98M-8320Z-S84-0000 (5.22)
Shrinkage	FLTM BN 105-01; HES D6506-00 (5.12); Honda 7426Z-S3V-A000 (4.2.6)
Solvent Resistance	AS 2282.13-1999; ESB M2D221-A, B, C (3.11), M2D221-D (3.10), M2D243-A (3.3.13), M4D113 (3.10), M4D262-C (3.10), M17H93 (3.4.7); MS-AY 309, 310; TS 202731 (3.8.14); TMS 6501 (4.3.9)
Staining	ASTM D925 (A); GM 9131P, 9141P; MS-DC-649 (Appendix A); TSM 7100G (4.14); VW staining PV 3937; WSS M15P20-B1/B2 (3.3.13)
Staining of Polycarbonate	Honda 7426Z-S3V-A000 (4.3.5)
Stress Relaxation Test	TSM 7100G (4.4)
Stretch and Set	HES D6506-00 (5.5); SAE J855; TSL 2104G (4.6), 2105G (4.2)
Tear Resistance	AS 2282.7-1999; ASTM D624 (Die C), D1004, D2261, D3574 (F), D5587, D5733; DIN 53356 A; ESX-83218 (4.3); GME 60 283-3; GMW 3326; HES D6506-00 (5.6); Hyundai MS-200-34 (4.3); ISO 34-1, 8067, 13937-2; JASO B 408-89 (6.6); JIS K6301, K6400; NES M0086 (12); Renault D41 1048; TS Tech Honda (4-5); TSL 2105G (4.3), 2106G (4.2, 4.3); TSM 7100G (4.6); Volvo STD 1024.3721

Test Description	Test Method(s)
Tensile / Elongation	AS 2282.6-1999; ASTM D412, D1623, D3574 (E), D5034; BS 4443-1-3A; DIN 53571 A2; ESX-83218 (4.2); GME 60 283-2; GMW 3010M; HES D6506-00 (5.4); Honda 98M-8320Z-S84-0000 (5.3), 83308-SDCA-A000; Hyundai MS-200-34 (4.2); ISO 527-1, -2 (*except 5.1.5*), 1798; JASO B 408-89 (6.5); JIS K6251, K6301 (3), K6400 (10); NES M0086 (6); Renault D41 1029; TS Tech Honda (4-4) TSL 2105G (4.1), 2106G (4.1); TSM 7100G (4.5); Volvo STD 1024.2115
Thickness	ASTM D1777, D1813, D5736; ISO 5084; SAE J882
Water Absorption	ASTM C272, D570, D1056 (42-48); GM 9986183 (3.2.2.4); ISO 6916-2 (Annex E); MS DC600 (Table 3.11); NES M0086; SAE J315 (12)
Water Vapor Transmission	ASTM E96/E96M
Wet Heat Aging Compression Set	ASTM D3574 (L); ESX-83218 (4.9); JIS K6400; TS Tech Honda (4-8-2); TSM 7100G (4.8.2)

The American Association for Laboratory Accreditation

World Class Accreditation

Accredited Laboratory

A2LA has accredited

P3T LAB - POLYURETHANE PHYSICAL PROPERTY TESTING LABORATORY

Woodbridge, Ontario, Canada

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 4th day of May 2011.

President & CEO
For the Accreditation Council
Certificate Number 2050.01
Valid to March 31, 2013

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.