



Hanwha

Advanced Materials America

WWW.Hanwhaus.com

Hanwha Advanced Materials America LLC
1530 E. Front Street, Monroe, MI 48161-2456
Office: (734) 457-5600

MATERIAL PROPERTY TEST REPORT

Test Standard: General Motors GMW16214, Type 2 (2015)
Material Type: Expanded Polypropylene Foam HB Series
Testing Completed & Certified by: MGA Labs. Greer, SC, USA (A2LA Cert. 850.02)
Product Type: HB Series

PROPERTY/TEST	PRINT** SPECIFICATION	SPECIMEN RESULTS	TEST METHOD
Density, g/l or kg/m ³ (30 g/l ±10%), Min	27-33	29	ISO 845
Tensile Strength KPa, Min	240	454	ISO 1926
Tensile Elongation %, Min	12	13	ISO 1926
Compression, Stress 50% Strain, KPa, Min	120	224	ISO 844
Compression Set 22 h at 50% Comp, KPa, Max	45	38	ISO 1856
Flammability As Received	100	69	FMVSS-302 (per GMW3232)
Heat Aged, Max (mm/min)	100	78	
Resistance to Odor	Rating > 6	Rating = 8	GMW3205-B2
Emission Analysis			
VOC Value; micro-g/g, Target ≤	100	9	GMW15634
Fog Value; micro-g/, Target ≤	250	23	
Fogging Mg/Max	2	1	GMW3235-B-Y1-T1

This certifies that the above material meets the requirements for the Production Part Approval Process per the General Motors Engineering Specification GMW16214 for Type 2 for 2015

William A. Pate

Date 4/23/2015

William A. Pate, Technical Service Manager
Hanwha Advanced Materials America LLC