

**TSE Industries, Inc.**

4370 112th Terrace North  
 Clearwater, FL 33762 (USA)  
 727-573-7676 or 800-237-7634 www.tse-industries.com

Formula ID 2141 Compound XP-7505-C Cure: S Color: B  
 Urethane Type: Polyester

Application: 70 Shore A Black Millathane® HT Premilled Compound

Millathane® HT Premilled	101.50	Durometer, Shore A	70	
Zinc Stearate	0.50	Durometer, Shore D		
N330 Black	25.00	Durometer, Asker C		
TOTM (plasticizer)	2.00	25% Modulus, psi		MPa
Struktol WB-222	1.00	50% Modulus, psi		MPa
Naugard 445	2.00	100% Modulus, psi	405	2.8 MPa
MBTS	4.00	200% Modulus, psi	925	6.4 MPa
MBT	2.00	300% Modulus, psi	1630	11.2 MPa
Thanecure® ZM	1.00	Tensile Strength, psi	3605	24.9 MPa
PB (RMS)-80	1.88	Elongation,%	490	
		Tear Die C, lb/in.	243	42.5 kN/m
		Tear Die B, lb/in.	325	56.9 kN/m
		Tear Die T, lb/in.		kN/m
		Specific Gravity, g/cc	1.208	
		CureTime, minutes	13	
		Cure Temp°F	320	160 °C
		Mooney Viscosity, ML4/100°C	45	
		<b>Heat Aging</b> 70 Hrs at 70 °C		
		Hardness Change, pts.	5	
		Tensile Change, %	-6	
		Elongation Change, %	-31	
		<b>Fluid Aging</b> Hydrolytic stability test, ASTM 3137		
		96 Hrs at 85 °C		
		Hardness Change, pts.	-4	
		Tensile Change, %	-23	
		Elongation Change, %	-21	
		Volume Change, %		
		Surface Resistivity, ohm/cm <sup>2</sup>	5.0E+05	
		Volume Resistivity, ohm-cm		
		UL 94 Rating:		
		<b>Total</b>	140.88	
Brittle Point, °C				
TR10, °C (ASTM D1329)				
Bashore Resilience, %	18			
DIN Abrasion, mm <sup>3</sup> loss	79			
Compression Set 22h/70°C, %	44			
Compression Set 70h/70°C, %				
Compression Set 22h/100°C, %	93			
Compression Set 70h/100°C, %				
Compression Set 22h/125°C, %	97			
Compression Set 22h/150°C, %	113			
Compression Set, Other conditions:				
	22 h/147 °C,%	98.8		

Other Tests and Info: Hydrolytic stability test was over water in oven at 85C (~100% Relative Humidity). Surface resistivity is 10<sup>5</sup> (tester only reads in powers of 10 so the 5x10<sup>5</sup> is approximate).

7/24/2017

The recommendations for the use of our products are based on tests believed to be reliable. However, we do not guarantee the results to be obtained by others under different conditions nor do we guarantee that this or other formulas will work in a specific application. Nothing in this literature is intended as a recommendation to use our products so as to infringe on any patent. Millstab™ is a trademark, and Millathane® and Thanecure® are registered trademarks of TSE Industries, Inc. All other brand names and product names referenced are trademarks, registered trademarks or trade names of their respective holders.



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Millathane® HT Premilled	101.50	Durometer, Shore A	70	
Zinc Stearate	0.50	Durometer, Shore D		
N330 Black	25.00	Durometer, Asker C		
TOTM (plasticizer)	2.00	25% Modulus, psi		MPa
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		Tear Die T, lb/in.		kN/m
		Specific Gravity, g/cc	1.208	
		CureTime, minutes	13	
		Cure Temp°F	320	160 °C
		Mooney Viscosity, ML4/100°C	45	
		<b>Heat Aging</b> 70 Hrs at 100 °C		
		Hardness Change, pts.	8	
		Tensile Change, %	-13	
		Elongation Change, %	-49	
		<b>Fluid Aging</b> Hydrolytic stability test, ASTM 3137		
		96 Hrs at 85 °C		
		Hardness Change, pts.	-4	
		Tensile Change, %	-23	
		Elongation Change, %	-21	
		Volume Change, %		
		Surface Resistivity, ohm/cm <sup>2</sup>	5.0E+05	
		Volume Resistivity, ohm-cm		
		UL 94 Rating:		
		<b>Total</b>	140.88	
Brittle Point, °C				
TR10, °C (ASTM D1329)				
Bashore Resilience, %	18			
DIN Abrasion, mm <sup>3</sup> loss	79			
Compression Set 22h/70°C, %	44			
Compression Set 70h/70°C, %				
Compression Set 22h/100°C, %	93			
Compression Set 70h/100°C, %				
Compression Set 22h/125°C, %	97			
Compression Set 22h/150°C, %	113			
Compression Set, Other conditions:				
	22 h/147 °C,%	98.8		

Other Tests and Info:

Hydrolytic stability test was over water in oven at 85C (~100% Relative Humidity). Surface resistivity is 10<sup>5</sup> (tester only reads in powers of 10 so the 5x10<sup>5</sup> is approximate). Akron Abrasion loss (3000 cycles, 15° angle, load 6 lbs): 0.031 cc loss.

7/24/2017

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		Tear Die T, lb/in.		kN/m
		Specific Gravity, g/cc	1.208	
		CureTime, minutes	13	
		Cure Temp°F	320	160 °C
		Mooney Viscosity, ML4/100°C	45	
		<b>Heat Aging</b> 70 Hrs at 125 °C		
		Hardness Change, pts.	10	
		Tensile Change, %	-23	
		Elongation Change, %	-52	
		<b>Fluid Aging</b> Hydrolytic stability test, ASTM 3137		
		96 Hrs at 85 °C		
		Hardness Change, pts.	-4	
		Tensile Change, %	-23	
		Elongation Change, %	-21	
		Volume Change, %		
		Surface Resistivity, ohm/cm <sup>2</sup>	5.0E+05	
		Volume Resistivity, ohm-cm		
		UL 94 Rating:		
		Total	140.88	
Brittle Point, °C				
TR10, °C (ASTM D1329)				
Bashore Resilience, %	18			
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Compression Set, Other conditions:				
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