

Intertek
NIJ 0117.00-2012: Public Safety Bomb Suit Standard
09.01.2016

Bomb Suits - Test Fees

Test	Pass/Fail Criteria	Preconditioning	Procedure	Initial Fee	Sample Needs – Initial Testing	Annual Fee	Sample Needs – Annual Testing	Category of N/C
Form & Fit Requirements	4.1	Ambient (70°F, 50% RH)	Checklist	\$450	3 ensembles	\$450	3 ensembles	Critical
Bomb Suit Models			(inspection)					
Form & Fit Requirements	4.2	Ambient (70°F, 50% RH)	Checklist	\$0	1 each element	\$0	1 each element	Critical
Elements of Models			(inspection)	(included w/4.1)		(included w/4.1)		
Form & Fit Requirements	4.3	Ambient (70°F, 50% RH)	Checklist	\$0	1 each accessory	\$0	1 each accessory	Critical
Accessories of Models			(inspection)	(included w/4.1)		(included w/4.1)		
Donning Test	5.2.1	Ambient:	Section 6.2	\$1,200	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing						
Quick Doffing Test	5.2.2	Ambient:	Section 6.2	\$0	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing		(included w/ 5.2.1)				
Incapacitated Doffing Test	5.2.3	Ambient:	Section 6.3	\$400	1 ensemble w/accessories to fit test surrogate described in Section 6.3.2.2	\$0	Not Applicable for Annual	Major A
		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing						

Static Field of View Test	5.2.4	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.4	\$600	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Dynamic Field of Vision Test – Head Rotation Only	5.2.5	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.5	\$400	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Dynamic Field of Vision Test	5.2.6	Ambient:	Section 6.6	\$400	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Head & Body Motion		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing						
Coin Recovery Test	5.2.6.1	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.7	\$250	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Lie on Back & Stand Up Test	5.2.6.2	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.8	\$200	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Test Course	5.2.7	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.9	\$2,000	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A

Gross Body Mobility –	5.2.8.2	Ambient:	Section 6.10 and	\$1,000	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Kneel & Rise Test		$70 \pm 5^{\circ}\text{F}$ ($21 \pm 2.9^{\circ}\text{C}$), $50 \pm 20\%$ RH for a minimum of 12 hours before testing	Section 6.11					
Gross Body Mobility –	5.2.8.3	Ambient:	Section 6.10 and	\$0	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Upper Arm Abduction Test		$70 \pm 5^{\circ}\text{F}$ ($21 \pm 2.9^{\circ}\text{C}$), $50 \pm 20\%$ RH for a minimum of 12 hours before testing	Section 6.12	(included w/ 5.2.8.2)				
Gross Body Mobility –	5.2.8.4	Ambient:	Section 6.10 and	\$0	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Upper Arm Forward Extension Test		$70 \pm 5^{\circ}\text{F}$ ($21 \pm 2.9^{\circ}\text{C}$), $50 \pm 20\%$ RH for a minimum of 12 hours before testing	Section 6.13	(included w/ 5.2.8.2)				
Gross Body Mobility –	5.2.8.5	Ambient:	Section 6.10 and	\$0	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Upper Arm Backward Extension Test		$70 \pm 5^{\circ}\text{F}$ ($21 \pm 2.9^{\circ}\text{C}$), $50 \pm 20\%$ RH for a minimum of 12 hours before testing	Section 6.14	(included w/ 5.2.8.2)				
Gross Body Mobility –	5.2.8.6	Ambient:	Section 6.10 and	\$0	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Upper Leg Abduction Test		$70 \pm 5^{\circ}\text{F}$ ($21 \pm 2.9^{\circ}\text{C}$), $50 \pm 20\%$ RH for a minimum of 12 hours before testing	Section 6.15	(included w/ 5.2.8.2)				

Gross Body Mobility –		Ambient:	Section 6.10 and	\$0				
Upper Leg Flexion Test	5.2.8.7	70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.16	(included w/ 5.2.8.2)	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Gross Body Mobility –		Ambient:	Section 6.10 and	\$0				
Upper Leg Forward Extension Test	5.2.8.8	70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.17	(included w/ 5.2.8.2)	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Gross Body Mobility –		Ambient:	Section 6.10 and	\$0				
Upper Leg Backward Extension Test	5.2.8.9	70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.18	(included w/ 5.2.8.2)	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Fogging Assessment	5.2.9	Ambient (helmet only): 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.19 NIOSH Procedure No. CET-APRS-STP-CBRN-0314, Section 6.1	\$1,500	1 ensemble, each smallest & largest size w/accessories	\$0	Not Applicable for Annual	Major A
Distortion Test –		Ambient 2:	Section 6.21					
Face Shields	5.3.2	73.4 ± 3.6°F (23 ± 2°C), 50 ± 20% RH for a minimum of 40 hours before testing	MIL-DTL-43511D, Section 4.4.5	\$650	3 each size face shield, including any supplier-recommended appliqué	\$0	Not Applicable for Annual	Major A
Luminous Transmission Test –		Ambient 2:	Section 6.22	\$0				
Face Shields	5.3.3	73.4 ± 3.6°F (23 ± 2°C), 50 ± 20% RH for a minimum of 40 hours before testing	ASTM D1003-00, Section 8	(included w/ 5.3.2)	3 each size face shield, including any supplier-recommended appliqué	\$0	Not Applicable for Annual	Major A
Haze Resistance Test –		Ambient 2:	Section 6.23	\$0				
Face Shields	5.3.4	73.4 ± 3.6°F (23 ± 2°C), 50 ± 20% RH for a minimum of 40 hours before testing	ASTM D1003-00, Section 7.1	(included w/ 5.3.2)	3 each size face shield, including any supplier-recommended appliqué	\$0	Not Applicable for Annual	Major A

Refractive Power Test –		Ambient 2:		\$0				
Face Shields	5.3.5	73.4 ± 3.6°F (23 ± 2°C), 50 ± 20% RH for a minimum of 40 hours before testing	Section 6.24	(included w/ 5.3.2)	3 each size face shield, including any supplier-recommended appliqué	\$0	Not Applicable for Annual	Major A
Prismatic Deviation Test –		Ambient 2:	Section 6.25	\$0				
Face Shields	5.3.6	73.4 ± 3.6°F (23 ± 2°C), 50 ± 20% RH for a minimum of 40 hours before testing	ANSI/ASSE Z87.1-2003, Section 14.9.2	(included w/ 5.3.2)	3 each size face shield, including any supplier-recommended appliqué	\$0	Not Applicable for Annual	Major A
Flammability Test –		Ambient:	Section 6.26					
Outer Surface Materials	5.4.2	70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	ASTM D6413-99	\$250/material	5 specimens each material in the warp and 5 specimens each material fill directions per type of outer surface material shall be tested	\$250	5 specimens each material in the warp and 5 specimens each material fill directions per type of outer surface material shall be tested	Critical
Flammability Test –		Ambient:	Section 6.26					
Helmets	5.4.3	70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before	ASTM D6413-99	\$250	3 helmets, mid-range size (without face shields, if detachable)	\$200	1 helmet, mid-range size (w/o face shields, if detachable)	Critical
Electrostatic Discharge	5.5.1	As outlined in clause 5.2.2 of STM 2.1-1997	Section 6.27 STM 2.1-1997	\$450	1 ensemble (no helmet), w/accessories	\$0	Not Applicable for Annual	Major A
Grounding Strap Detachment Test	5.5.2	Ambient: 70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	Section 6.9	\$0 (included w/test course 5.2.7 above)	1 ensemble w/accessories	\$0	Not Applicable for Annual	Major A

Impact Attenuation Test –	5.6.2	1 sample of each size helmet shall be exposed to each of the conditions as described in FMVSS No. 218, S6.4 (ambient, low & high temperature)	Section 6.28	\$750	9 helmets, w/required accessories & w/o face shields, if detachable	\$600	2 helmets, w/required accessories & w/o face shields, if detachable	Critical
Helmets			DOT TP-218-05		(3 each configured appropriately to fit the ASTM F 2220 size E, J, and M head forms)		(configured to fit the ASTM F 2220 size Large head form)	
Perforation Resistance Test –	5.6.3	1 sample of each size helmet shall be exposed to each of the conditions as described in FMVSS No. 218, S6.4 (ambient, low & high temperature)	Section 6.28 w/clause 12.7.4 of DOT TP-218-05	\$600	9 helmets, w/required accessories & w/o face shields, if detachable	\$500	2 helmets, w/required accessories & w/o face shields, if detachable	Critical
Helmets					(3 each configured appropriately to fit the ASTM F 2220 size E, J, and M head forms)		(configured to fit the ASTM F 2220 size Large head form)	
Retention System Test –	5.6.4	1 sample of each size helmet shall be exposed to each of the conditions as described in FMVSS No. 218, S6.4 (ambient, low & high temperature)	Section 6.28 w/clause 12.7.4 of DOT TP-218-05	\$650	9 helmets, w/required accessories & w/o face shields, if detachable	\$0	Not Applicable for Annual	Major A
Helmets					(3 each configured appropriately to fit the ASTM F 2220 size E, J, and M head forms)			

Spine Protection Test	5.7.1	1 sample at each of the conditions as described in CSA/CAN Z617-06 (ambient, low & high temperature)	Section 6.29	\$1,900	3 facsimile samples each of the spine protector for the smallest and largest size bomb suit offered by the supplier (including any component layers associated with the spine protector)	\$700	1 facsimile sample each of the spine protector for the smallest and largest size bomb suit offered by the supplier (including any component layers associated with the spine protector)	Critical
			CSA/CAN Z617-06-Section 11.4.5.1 and 11.4.5.3					
Fragmentation Test –	5.8.1 & 5.8.2	Ambient 3:	Section 6.30	.22 Caliber, \$425 per sample	6 facsimile samples each armor type (reference Table 10) w/fabric protection (including plate inserts where appropriate)	.22 Caliber, \$325 per sample	1 facsimile samples from 2 armor types (reference Table 10) w/fabric protection (including plate inserts where appropriate) – See Appendix A for additional details	Critical
Bomb Suits		68 ± 10°F (20 ± 5.5°C), 20% to 70% RH for a minimum of 24 hours before testing	MIL-STD-662F	.30 Caliber, \$450 per sample		.30 Caliber, \$350 per sample		
				.50 Caliber, \$475 per sample		.50 Caliber, \$375 per sample		
Fragmentation Test –	5.8.1 & 5.8.2	Ambient 3:	Section 6.30	.22 Caliber, \$425 per sample	6 helmets (three helmets per threat round)	.22 Caliber, \$325 per sample	2 helmets (one helmet per threat round)	Critical
Helmets		68 ± 10°F (20 ± 5.5°C), 20% to 70% RH for a minimum of 24 hours before testing	MIL-STD-662F	.30 Caliber, \$450 per sample		.30 Caliber, \$350 per sample		
				.50 Caliber, \$475 per sample	3 face shields (minimum)	.50 Caliber, \$375 per sample	1 face shield	
Fragmentation Test –	5.8.3	Ambient 3:	Section 6.30		1 sample each armor type (reference Table 10)		1 sample each armor type (reference Table 10)	Critical
Footwear (Optional)		68 ± 10°F (20 ± 5.5°C), 20% to 70% RH for a minimum of 24 hours before testing	MIL-STD-662F					

Bomb Suit Integrity Test	5.9.1.1	Ambient:	Section 6.31	\$8600 plus	1 ensemble w/accessories to fit test surrogate described	\$8600 plus	1 ensemble w/accessories to fit test surrogate described	Critical
		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing		witness costs		witness costs		
Drag Rescue Device Test	5.10.1	Ambient:	Section 6.32	\$450	1 ensemble w/accessories to fit test surrogate described in Section 6.32.2.1	\$0	Not Applicable for Annual	Major A
		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	NFPA 1971 (2007), Section 8.59.5.10					
Label Durability –	5.11.1	Ambient:	Section 6.33	\$300	3 each label sewn onto bomb suit material w/any write-in information	\$0	Not Applicable for Annual	Major B
Wear Test		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	NFPA 1971 (2007), Section 8.42.4.2.1					
Label Durability –	5.11.2	Ambient:	Section 6.34	\$175	3 each label w/any write-in information	\$0	Not Applicable for Annual	Major B
Chemical Resistance Test		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	NFPA 1971 (2007), Section 8.42.4.2.1					
Slip Resistance Test –	5.12.1	Ambient:	Section 6.34	\$450/ type	2 each footwear type	\$0	Not Applicable for Annual	Major A
Optional Footwear		70 ± 5°F (21 ± 2.9°C), 50 ± 20% RH for a minimum of 12 hours before testing	ASTM F 489					
Label Content and Compliance Statements	7.1 and 7.2	None	Checklist (inspection)	SEI/\$100	1 copy	SEI/\$100	1 copy	Minor
User Info	7.3	None	Checklist (inspection)	SEI/\$50	1 copy	SEI/\$50	1 copy	Minor
Technical Data Pkg.	7.4	None	Checklist	SEI/\$150	1 copy	SEI/\$150	1 copy	Minor
			(inspection)					