

50 SERIES MASK VISOR & OUTSERT IMPACT REPORT

SIMUMITION PERFORMANCE

This report refers to the C50, PC50, FM50, FM53 and FM54 mask visor and outsert only.

NOTE: Other rubber & plastic components of the mask may have lower impact resistance than the visor outsert.

Two types of training round were used, Simunition FX and Close Quarter Target (CQT). Testing was conducted at an Avon Protection UK facility in conjunction with the London Metropolitan Police, and Edgar Brothers, the supplier of Military and Law enforcement training ammunition.

MILITARY TESTS

The Avon 50 series masks meet the military V50 requirements for protection against a 5.8 grain T37 shaped projectile travelling at 650 ft/sec. The protection is enhanced when the mask is fitted with the visor outsert.

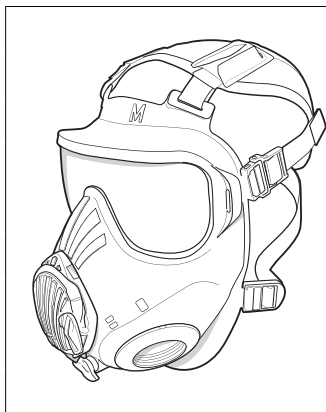
EUROPEAN CIVILIAN TESTS

The Avon 50 series masks, both with and without the visor outsert, meet the requirements of EN 166 clause 7.2.2 medium energy impact against a spherical projectile travelling at 120 m/sec.

The mask fitted with the outsert meets the requirements of EN 166 clause 7.2.2 high energy impact against a spherical projectile travelling at 190 m/sec.



SIMUMITION DATA



	Terminal Effect – Lethality	Non - Lethal	Non - Lethal	Lethal
Components				
Designation		FX	FX	CQT
Calibre		5.56 mm	9 mm	5.56 mm
Projectile mass		0.23g (3.5 grains)	0.50g (7 grains)	0.3g (4.7 grains)
Simunition Data				
Velocity at 3.5m (12 ft.):21°C (70°F)		200 m/s (650 fps)	150 m/s (490 fps)	450 m/s (1,475 fps)
Maximum range		200 m (660 ft.)	150 m (500 ft.)	325 m (1,066 ft.)
Muzzle Energy at 3.5m (12ft)		Approx. 5 joules	Approx 5.6 joules	Approx 27 joules





AVON 50 SERIES VISOR

The Avon 50 series of respirator offer a flexible single piece moulded polyurethane visor.



AVON 50 SERIES VISOR OUTSERT

Flexible polycarbonate outsert attaches to 50 series masks to provide additional impact and scratch resistance in extreme environments.

Outsert Part Numbers	
Clear	70501/156
Sunlight	70501/157
Blueblocker	70501/158
Mirrored	71014/14



Clear Outsert



Blueblocker Outsert



Sunlight Outsert

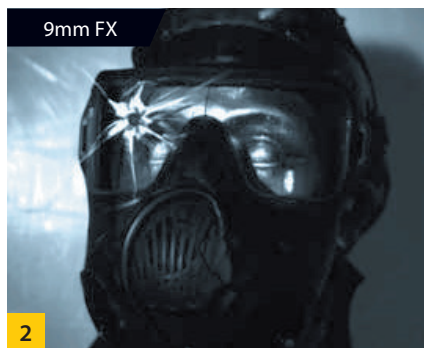


Mirrored Outsert

TABLE I.O RESULTS

Ballistic Round		Target		Penetration Pass / Fail		
Designation	Calibre	Distance	Location	Visor	With Outsert	
					Visor	Outsert
FX	5.56 mm	1 metre	Visor	1 ✓	✓	✓
	9 mm			2 ✓	✓	✓
CQT	5.56 mm			X	3 ✓	X

Non lethal FX 5.56 mm and 9 mm rounds did not damage, or penetrate the visor / Lethal CQT 5.56 mm requires an outsert to protect the round from penetrating the visor.



A Photron high speed photography DVD of the ballistic testing (recorded at 5,000 frames per second) can be requested from Avon Customer Services.

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