

STANDARDS

- Based on the NIJ test procedure using controlled plasticine as the backing.
- Each caters for own requirements, eg. Police standards mostly handguns and stabbing and military standards mostly fragments and rifles.
- Own South African standard SANS 1658:2006 catering for South African threat scenario.
- Mostly 6 x shots on soft armour and 3 x shots on hard armour plates. (Excepting NIJ requiring 6 x shots and SANS requiring 5 x shots on HAP's)

SANS 1658:2006 (Test variables)

Table 1

1	2	3	4	5	6	7	8	9	10	11
Test Variables					Performance Requirements					
Armour type	Test round	Test bullet	Bullet weight ($\pm 2\%$)	Reference Velocity (± 9 m/s)	Range ($\pm 0,025$ m)	Hits per armour part at 30° angle of incidence	Hits per armour part at 0° angle of incidence	Shots per panel	Pattern of strikes	BFS depth maximum
II	1	9mm FMJ RN	8,0 g 124gr	367 m/s	5m	2	4	6	See figure 8	44 mm
	2	357 Mag JSP	10,2 g 158 gr	436 m/s	5m	2	4	6		44 mm
IIIA	1	9mm HV FMJ RN	8,0 g 124gr	436 m/s	5m	2	4	6	See figure 8	44 mm
	2	44 Mag SJHP	15,6 g 240 gr	436 m/s	5m	2	4	6		44 mm
IIIA Special Tokarev	1	7,62 mm Tokarev FMJ	5,5g 85gr	450m/s	5m	2	4	6	See figure 8	44mm
III	1	7,62 x 51mm FMJ	9,6 g 148 gr ^a	847 m/s	15m	0	6	6	See figure 8	44 mm
III Special (S.A. mix)	1	7,62 X 39 mm API	7,8g 120 gr	725m/s	15m	0	1	5	See figure 7(a) ^b	44mm
	1	7,62 X 39 mm FMJ (MSC)	7,9 g 123 gr	710m/s	15m	0	2	5		-
	1	7,62 X 51 mm FMJ	9,6g 148gr	847m/s	15m	0	1	5		44mm
	1	5,56 x 45 mm FMJ	3,56g 55gr	955m/s	15m	0	2	5		-
IV	1	7,62 x 63mm M2 AP	10,8 g 166 gr	878 m/s	15m	0	1	1	See figure 7(a) ^b	44 mm

NOTE Level II, IIIA. Six strikes are required of each calibre on separate panels as per shot pattern figure 8.
 Level IIIA special Tokarev bullet type to be steel jacket with lead core.
 MSC - steel jacket with mild steel core
 HV – high velocity
 Level III special (SA mix). Two panels are tested. Shoot panels according to figure 7(a). Shoot one panel first using 7,62 x 51mm ball, and shoot the first shot on the remaining panel using 7,62 x 39 mm API – on both panels shoot shots two and three using 7,62 x 39 mm ball and shots four and five using 5,56 x 45 mm ball.

^a 143gr acceptable where 148 not available.
^b one shot anywhere on panel – not less than 50 mm from edge.

NEW STANDARDS

Newer technologies, materials, improvement in understanding the technologies involved, life-cycle experiences and use in the field require continual updating of specifications. Newer products will in future need to conform to these ever changing requirements. The newest specifications reflect the following general trends:-

- Lower multishot requirements (3 x shots per plate)
- More life-cycle testing before acceptance
 - Humidity
 - Humidity and temperature cycling
 - Water immersion
 - “Tumbling” testing
 - Drop tests
- More descriptive threat levels (Specialized)
- Repetitive batch testing
- Maintenance inspection (Every few years)
- Better and standardized information on labels

