

PRODUCT : SHELTEK
REF. No. : PN 581

DOC. NO.	QF/RD/05
ISSUE	01
REVISION	01
DATE	26-06-2014



CONFORMING TO IS: 2925:1984
& EN 397: 2012

SL. No.	CLAUSE	DESCRIPTION	PARAMETERS	SPECIFICATION
1	PHYSICAL PARAMETERS	General	Protection	The QUADRUPLE CORRUGATION on the shell provides greater toughness thereby offering stronger protection. The Anchoring points of the cradle are extra thick to ensure that there is no failure of the cradle in case of an impact. The walls of the Anchoring points in the Shell where the cradle is anchored are extra thick to prevent any damages and slip out of the anchor points upon an impact.
			SHOCK ABSORPTION	The function of a Safety Helmet is not only to provide protection to the user's Head from a falling object but its capacity to reduce the impact, which is defined as Shock Absorption Capacity.
			WEARER COMFORT & ERGONOMICS	<ul style="list-style-type: none"> Forehead comfort pad consists of textile laminated foam sheet to provide extra softness & comfort to the user. The comfort pad is non skin irritant. The unique Head band allows good absorption of sweat. Maintains a neutral pH. Hence does not cause skin irritation It does not stain the skin through any release of colour The six point attachment cradle within the shell has a unique angular placement to provide optimum shock absorption. Sheltek is provided with side slots for fitting face and hearing protection accessories Has adjustable chin strap

				<ul style="list-style-type: none"> Comes with Ratchet- type adjustment for comfort and better grip. Ratchet of the SHELTEK has a very innovative design consisting of Ratchet Cover, Ratchet Base and Knob for very easy adjustment of the headband.
			COLOUR PREFERENCE	SHELTEK offers more than 10 colours viz. White, Yellow, Star Blue, Lamination Blue, Red, Mint Green, Hyd. Green, Orange, Grey & Violet.
			HARNES PREFERENCE	The Helmet inner Harness is available in options of webbing and polymer as per the customer need.
		WEIGHT		420-440 gms
2	VITAL TEST COMPLIANCE AS PER EN397:2012 & IS2925:1984	CONDITIONING BEFORE TEST	VERY HOT CLIMATE	Placed at a Temperature of 50±5°C for 4 hours in an oven.
			VERY COLD CLIMATE	Placed at a temperature of -10±2°C for 4 hours in a refrigerator.
			HEAVY RAINFALL	Water flowing all over the surface at 1Ltr/min for 4 hours.
		SHOCK ABSORPTION TEST	AS PER IS2925:1984	A rectangular block having a horizontal striking surface of 180mm x 180mm weighing 3 kgs is allowed to fall freely over the helmet which is conditioned at above mentioned conditionings from a height of 1.5mtr ±5 mm. It is ensured that the force transmitted is not greater than 5 kN i.e. 510 kgf . "SHELTEK" complies with the above specification completely.
	VITAL TEST COMPLIANCE AS PER EN397:2012 & IS2925:1984	SHOCK ABSORPTION TEST	AS PER EN397:2012	A Striker, having a mass of 05 kg and a hemispherical striking face of 50 mm ± 1 mm radius, is allowed to fall freely over the helmet from a height of 01Mtr. ± 0.5mm. It is ensured that the force transmitted is not greater than 5KN. "SHELTEK" complies with the above specification completely.
		PENETRATION TEST	AS PER IS2925:1984	The IS specification IS 2925:1984 says that if a striker of mass 500 gms with a conical steel

				<p>point having an included angle of 36° and a spherical point radius is dropped on the helmet, mounted on the head form and conditioned at above mentioned conditioning, from a height of 3 mtr, the helmet's shell should not be pierced enough to allow the point to touch the head form & the dent on Helmet shall not exceed 10mm.</p> <p>"SHELTEK" complies with the above specification completely.</p>
			AS PER EN397:2012	<p>The CE specification EN 397:2012 says that if a Striker of mass 3.0 Kg. with a conical steel point having an included angle of 60° ± 0.5° and a spherical point radius of 0.5 mm ± 0.1 mm is dropped on the "SHELTEK", mounted on the Head Form, from a Height of 1000 mm ± 5 mm, the "SHELTEK" Shell should not be pierced enough to allow the point to touch the Head Form.</p> <p>"SHELTEK" complies with the above specification completely.</p>
		FLAME RESISTANCE TEST	AS PER IS2925:1984	<p>IS 2925:1984 have framed certain specification for flame resistance. A blue flame is generated by a burner with temperature same as that of melting point of copper. This flame is exposed to the surface of the "SHELTEK" at 45° angle for a period of 10 seconds and then the "SHELTEK" is removed. It is ensured that the helmet does not catch fire within 5 seconds of removal of the flame.</p> <p>"SHELTEK" complies with the above specification completely.</p>
		FLAME RESISTANCE TEST	AS PER EN397:2012	<p>When tested as per the procedures mentioned in EN397:2012 the Shell of Safety Helmet is subjected to Flame & the material of Shell shall not burn with the emission of flame after a period of 5 sec has elapsed after removal of flame.</p> <p>"SHELTEK" successfully complies with the requirements of this test.</p>

		CHIN STRAP ANCHORAGE TEST	AS PER EN397:2012	The CE Specification EN397:2012 says that Anchorage Points shall not break at a force of not less 150N and not more than 250N when subjected to tensile load on Safety Helmet mounted on headform. "SHELTEK" successfully complies with the requirements of this test.
			AS PER IS2925:1984	The IS specification says that the Chin Strap of Safety Helmet shall not break when a load of 10kgf is applied for 05 minutes and "SHELTEK" successfully complies with the requirements of this test.
		ELECTRICAL INSULATION TEST (OPTIONAL)	AS PER EN397:2012	When tested as per specifications mentioned in EN397:2012, the Leakage Current shall not exceed 1.2 mA. "SHELTEK" successfully complies with the requirements of this test.
		ELECTRICAL RESISTANCE TEST	AS PER IS2925:1984	As per IS 2925:1984 standards an inverted helmet is placed into a container containing a solution chloride in water (6 gms/ltr.). The same solution is filled in the inside of the helmet as well. The helmet is allowed to stand for a period of 18-24 hours at room temperature. An A/C voltage of 2000 V is generated between two electrodes, and an ammeter connected in series. It is to be ensured that ammeter shall not show a leakage current in excess of 3 mA. "SHELTEK" successfully complies with the requirements of this test.
		LATERAL DEFORMATION TEST (OPTIONAL)	AS PER EN397:2012	When tested according to method Prescribed in EN397:2012, The maximum lateral deformation of the helmet shall not exceed 40 mm , and the residual lateral deformation shall not exceed 15 mm. "SHELTEK" successfully complies with the requirements of this test.

		VERY LOW TEMPERATURE -20°C or -30°C (OPTIONAL)	AS PER EN397:2012	When tested as per the method described in EN397:2012, it is ensured that the force transmitted is not greater than 05kN. "SHELTEK" successfully complies with the requirements of this test.
				When tested as per the method described in EN397:2012, the Safety Helmet's Shell should not be pierced enough to allow the point of striker to touch the Head Form. "SHELTEK" successfully complies with the requirements of this test.
		HEAT RESISTANCE TEST	AS PER IS2925:1984	IS 2925:1984 ensures a baseline conformity to heat resistance. The shell is placed in an oven for 15 minutes maintained at a constant temperature of 93±5°C. Upon removal from the oven, the shell should not separate, distort or soften. "SHELTEK" successfully complies with the requirements of this test.
		WATER ABSORPTION TEST	AS PER IS2925:1984	The IS specification says that the Safety Helmet shall not absorb water more than 5% of its mass when totally dipped into water for 24 hours and "SHELTEK" successfully complies with the requirements of this test.