

## Technical Specifications / Requirements of Armoured Toyota Fortuner E4 SIGMA

S.No.	Description	Required Specifications/Work
1	General	<p>i) The additional protection material should be fitted on the body as add on which do not hinder with the seating / functioning of the occupants.</p> <p>ii) If any additional accessories required beyond these tender parameters, the firm should provide additional accessories within the quoted amount for the armouring work.</p>
2	Protection level to be provided to the vehicle	<p>i) <b>Top:</b> With Stand direct hit of 7.62 x 51mm ball, 5.56 x45mm and 7.62 x39 mm Hard steel core at a distance of 10 M at an angle of 45°.</p> <p>ii) <b>All Sides:</b> With stand direct hit of 7.62 x 51 mm ball, 5.56 x45 mm and 7.62 x39 mm Hard steel core at a distance of 10 M at an 90° angle of attack. Aramid or similar material should be provided as inner liner.</p> <p>iii) <b>Bottom Under carriage:</b> Passengers / Occupants should be protected against blast of hand grenade HE36 or equivalent directly under the vehicle.</p> <p>iv) <b>Bonet:</b> Kevlar Carpet</p> <p>v) <b>Back side:</b> Third row seats shall be rearranged to face inner side.</p> <p>vi) <b>Flooring:</b> Kevlar Carpet with MS sheet 2mm</p> <p>vii) <b>Wheel:</b> Yokohama Tyres heavy duty (5Nos) with run flat system be provided which should have run flat capability of minimum 40 Kms.</p> <p>viii) <b>Glass Wind shield and side glass:</b> Same as per sides.</p> <p>A bonded combination of glass, polycarbonate and mylar should be provided with the following qualities:</p> <ul style="list-style-type: none"> <li>○ Glass thickness: less than 45mm</li> <li>○ Anti-spall shield protecting against shattering glass</li> <li>○ Multiple impact protection</li> </ul>

		<ul style="list-style-type: none"> <li>○ Finest optical quality, Minimal distortion</li> <li>○ No de-lamination, no discoloration from UV rays</li> </ul> <p><b>ix) Door, windows and roof hatch:</b> Two sides door with windows, easy opening rear door for quick embossing / debussing. Windows to have similar protection as for the side.</p> <p><b>x) Fuel Tank:</b> Similar protection levels as for sides and under carriage i.e. Shrapnel protection for fuel tank.</p> <p><b>xi) Radiator:</b> Matching bullet proof protection as mentioned in above para (ii) to be catered for.</p> <p><b>xii) Suspension enhancement:</b> Suspension system and related Infrastructure components like heavy duty struts (Front &amp; Rear) should be reinforced as necessary to compensate for additional weight.</p> <p>Top mounts and bottom mounts should be changed along with 18 mm Hard chromed piston rods or better.</p>
3	Batteries	Maintenance free batteries
4	Fire extinguisher	Min. 2 Kg pressure ABC type (Suitable for use with fires involving ordinary combustibles, flammable liquids and energized electrical equipment). Fire suspension agents to be provided for the fuel assembly.
5	Power to weight ratio	Ratio should not be less than 24 kw/ton
6	Certificates	All reports for the materials used be provided by the firms from national accreditation board for testing and calibration Laboratories (NABL) accredited lab.
7	Testing / Inspection of materials	Should submit the required materials in a detached and assembled form for the inspection by the user as per the MHA guidelines.
8	Warranty	One year

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