Process

The manufacturing set up at Vitality follows an optimally integrated mechanism, with quality checks at each department. As a product moves from one department to the other, it is thoroughly checked on the pre-outlined parameters for consistent quality

Here is a brief idea regarding the process undertaken in manufacturing of a fiber glass helmet. Firstly the best of the raw material is chosen and the layers of fiber glass are mixed with the Raisin. The mixing requires precision in many aspects for e.g the Raisin mix varies according to the varying temperature. The entire activity is handled by the experts to ensure a Perfectly Moulded Shell. Thereafter, each shell is inspected by the quality control supervisor in the moulding section and is marked OK to be passed on to the Paint Preparation Department. The surface of the shell is prepared for smoother long lasting, superior paint finish. It is baked several times by applying different pattis, ensuring smoothness and suitability for paint application.

Similarly each process is marked with certain guidelines for the department to follow. The departmental Head marks the product OK and passes it to the subsequent department till the product reaches the final stage, wherein it is further subjected to final inspection, labeling and packaging.

**QUALITY CONTROL**  
VITALITY helmets are manufactured under strict quality control to ensure that it meets the national and the international safety standards. Our state of the art testing laboratory is capable of testing helmets conforming to all the standards of world including DOT, SNELL 2000 (U.S.A), ECE 22.05 European, British, TCVN 5756 Vietnamese and Bureau Of Indian Standards (IS: 4151).

Quality control is an integral part of all the processes at VITALITY namely In-Coming Inspection, In-Process Inspection and Final Inspection / Pre-Shipment Inspection. Inspection is carried out by state of the art Iinspection, Measuring and Testing equipments (IMT), which are regularly calibrated to ensure consistent, reliable and accurate measurement.

Helmets are used to protect head, spinal cord, temple, neck etc. from injuries due to high impact. To minimize this force of impact, utmost care have been taken in designing helmets scientifically. Following tests are conducted on helmets using calibrated IMT’s to ensure maximum safety to its user:

1) Audibility Test 2) Impact Test 3) Penetration Rigidity & Retention Test, 4) Corrosion Test 5) Vision Test 6) Tensile Test

**Correct / good helmet capable of passing these tests has four important parts:**

1. The Outer Shell / Visor: Our helmets are made from Fibreglass Reinforce Plastic or High impact ABS. It is the level of protection from penetration or shock in case of impact. The hard outer shell distributes the force of impact across the surface thereby reducing direct impact. Visor connected to outer shell protects eyes from dust particles, wind gust & bugs and allows normal peripheral vision.
2. The Inner Lining: It is made of Expanded Polystyrene (EPS) and offers second level of protection. Its crushable material limits the force of impact and lowers the effect of the blow on the head.
3. The Comfort Padding: Comfort padding is used to cover inner lining to give a snug fit to the head. The helmet padding should rest firmly but comfortably on head. Good quality heat insulation material, systematically designed wind circulation and high quality single piece sweat absorbing harness is provided to avoid any type of irritation.
4. The Retention System: We use the best quality Nylon straps & buckles, which can withhold tensile load of up to 400 kg. No other treading of any kind has been used to make it more attractive at the cost of safety. In no circumstance, our straps will come out of the buckle at the time of any mishap.