

## Technical Specifications of Vaccine Carrier

### 1 Description of Function

SI	Name
1.1	Vaccine carriers are used to safely carry the vaccines during transportation.

### 2 Operational Requirements

SI	Name
2.1	Small vaccines carriers, short range are required to safely transport the vaccines under cold conditions for short distances.

### 3 Technical Specifications

SI	Name
3.1	Vaccine Storage Capacity 1- 2 litres( any capacity within this range is acceptable
3.2	Weight fully loaded should be upto 5 Kg
3.3	Weight empty with empty ice pack should be upto 3 kg
3.4	<b>External surface being HDPE-(High Density Polyethylene) and internal lining of HDPE/HIPS.</b>
3.5	Insulation material CFC-free Polyurethane
3.6	Insulation thickness: 30-50 mm
3.7	Cold Life without opening 36 hours at 43 deg C (OR BETTER)
3.8	<p>Each vaccine carrier/cold box shall contain ice packs of WHO PQS Performance specification, E-05/IP01.1 The specifications are as given below:</p> <p>Water Content: 0.3 Litres.</p> <p>External Dimensions: 163x90x33 mm +/- 1 mm.</p> <p>Empty weight-75 to 80 gms</p> <p>Robustness: The Ice Packs samples shall withstand a two metre drop on every face, edge and corner when in a frozen state (-10 deg C to -20 deg C). It will then successfully pass the leakage test after thawing.</p> <p>Leakage Test: No leaks when 80 Kg lateral force is applied.</p> <p>Features: Effective reinforcements to restrain walls against swelling.</p> <p>Removable cap for filling ;cap to have effective internal water seal to resist 80 kg lateral force with no leakage.</p> <p>Manufacturer's recommended filling line to be clearly indicated.</p> <p>Freezing Characteristics:</p> <p>Shall not display super cooling characteristics when filled with demineralised water and frozen in flat, horizontal contact with evaporator at - 8 deg C.</p>

	Maximum thickness of the icepack, when frozen solid and laid flat on an evaporator surface, shall not exceed the unfrozen thickness by more than 10%. The internal dimension of the unit should be sufficient to accommodate the largest tolerances of the standard ice packs.
3.9	In addition to the existing lid of the vaccine carrier a foam pad to be provided to serve as a temporary Lid to hold the vaccine vials during immunization sessions. The pad will: * be soft foam , minimum 30 mm thickness; * fit tightly inside the neck of the carrier on top of the ice packs, under the Lid * Vaccine Carrier should not have any slit cut into it for insertion of vaccine vial. However, puff insulation should be retained.

#### 4 System Configuration Accessories, spares and consumables

SI	Name
4.1	Vaccine Carrier-01
4.2	Ice Packs-04
4.3	Foam Pad-01

#### 6 Standards, Safety and Training

SI	Name
6.1	The equipment should Conform to WHO PQS Performance Specifications, E-04/VC 01.2. The equipment should preferably be listed on the PQS Information sheet of WHO.
6.2	The system should be tested as per WHO Product Verifications Protocol E004/VC 01-VP.2 for Vaccine Carriers and E005/IP01- for Ice Packs.
6.3	Warranty- The manufacturer must provide unconditional replacement warranty for two years

#### 7 Documentation

SI	Name
7.1	Manufacturer's certification of compliance of test procedures as per WHO Standards Test Procedures.
7.2	Certificate of Type Testing as per WHO Product Verification Protocol to be provided prior to dispatch. Type-testing will be carried out by an independent <a href="#">ISO/IEC 17025</a> testing laboratory, accredited for Type Testing of COLD BOXES and VACCINE CARRIERS by WHO/ UNICEF/ STQC/ NABL.