HAND OPERATED CONT. KNAPSACK SPRAYER
"KK-16 L"

GOVERNMENT OF INDIA
MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURE & COOPERATION)

NORTHERN REGION FARM MACHINERY TRAINING AND TESTING INSTITUTE
TRACTOR NAGAR, SIRSA ROAD, HISAR-125001 (HARYANA)
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<th>Clause No.</th>
<th>Specified requirement</th>
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<td>Cl. 4.3</td>
<td>All metallic parts coming in contact with the pesticides, should preferably be of the same material to minimize bimetallic corrosion</td>
<td>Only handle operating lever and pivot is made of mild steel. Rest of the parts are made of plastic.</td>
<td>Conforms</td>
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<td>Cl. 4.4</td>
<td>The material used for different components shall be declared by the manufacturer in the manual</td>
<td>Separately declared by the manufacturer on a leaflet.</td>
<td>Conforms</td>
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5. Performance requirement IS:3906-2006

5.1 Discharge rate

When tested in accordance with the method given in 6.1.3 of IS: 10134-Dec. 2004 the pump shall be capable of discharging a minimum of 500 ml of water per minute

Average rate of discharge is 580 ml/min

Conforms

5.2 Volumetric Efficiency

When tested in accordance with the method given in -6.2 of IS: 10134-Dec. 2004, the volumetric efficiency shall be not less than 80 percent

Volumetric efficiency is 95%

Conforms

Cl. 6 IS:3906- Feb. 2006
Construal requirements:
Cl. 6.1 Tank

The tank capacity shall be 10,13 or 16 litres with a tolerance of ± 0.5 litre

The tank capacity is 16 litres

Conforms

Cl.6.1.1 The thickness of sheet used in manufacture of brass tank shall be minimum of 0.63 ± .03 mm

Not applicable as the by tank is made of HDPE of 3.6 mm thickness

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Cl. 6.1.2 The tank when filled upto its neck level with water shall not show any sign of leakage and shall not buckle

No sign of leakage or buckling in tank noticed

Conforms

Cl.6.2 Skirt/Stands

The tank shall be provided with a skirt/stand which shall project a minimum of 12mm beyond the lowest portion of the bottom of the tank

Skirt/ stand is integrated part of the tank projected 27mm beyond the lowest portion of the bottom of the tank

Conforms
6. COMMENTS:

1. Hand operated knapsack sprayer Kisan Kraft KK 16L conforms with all the requirements of IS:3906-2006 except the constructional requirements specified in following clauses. These should be incorporated at manufacturing level.
   - Cl. 4.1(ix) and (xxix) IS: 3906-2006-Material of construction -Piston rod and cut off device components -Operating trigger.
   - Cl. 6.3 IS:3906-2006-straps
   - Cl. 6.4.2 IS:3906-2006-Strainer
   - Cl. 6.7.2 IS:3906-2006
   - Cl. C-5 IS:3652-2004-Hand operated cut off device-Gaskets
   - Cl. D-3 IS:3652-2004-Spray lance-Dimensions
   - Cl.7.3 IS:3906-2006 – Strap Cushion
2. Hand operated knapsack sprayer Kisan Kraft KK 16L conforms with all the requirements of IS:3906-2006 expect the requirements of marking specified in following clauses of Indian Standard. These Should be added on sprayer.
   - Cl. C-10 IS:3652-2004-Hand operated cut off device marking
   - Cl. D-5 IS:3652-2004-Spray lance-Marking
   - Cl. F 3.2 IS:3652-2004-Declaration of spray angle of nozzle
   - Cl. F-5 IS:3652-2004-Hydraulic spray nozzles-Designation
   - Cl. F-11 IS:3652-2004-Hydraulic spray nozzles-Marking
   - Cl. 9 IS:3906-2006 -Cl. 9.1(b) –Marking
   - Please refer para 5 for more details

TESTING AUTHORITY

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Applicant’s comments
Received and added in test report.

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