Fire and Rescue Service
Operational Guidance
EM-XXX

Equipment Manual
Environment Agency Grab Pack

Operational Guidance
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Fire & Rescue Service
Operational Guidance

Equipment Manual
Environmental Protection Equipment
Environment Agency Grab Pack

1 General Description

The Environment Agency Grab Pack contains a range of ‘first strike’ environmental pollution control equipment. Funded by the Environment Agency, the pack is designed for use by front-line Fire and Rescue Service (FRS) crews.

2 Primary Function

The primary function of the equipment contained within the pack is to provide emergency containment of pollutants and reduce the possibility of damage to a water source or other environmental receptor.

3 Hazards

3.1 Safety and PPE

- Although the contents of the pack is intended as first strike measures, there may be uses for some of the contents at more serious incidents. All personnel must ensure that the correct Personal Protective Equipment (PPE) is worn, which may include BA and GT suits.
- Once exposed to a pollutant; used grab pack equipment should be treated as polluted and disposed of appropriately.

4 Construction

4.1 Main Parts

The standard Environment Agency Grab Pack (see Figure 1) consists of ten main parts:

- Grab pack bag (empty)
- Ready-mixed clay leak sealing putty in collapsible tub
- Disposable clay drain sealing mat (45 x 45 cm)
- 1 x pair of gloves
- Oil absorbent pads (45 x 52 cm approx.)
- Polyboom (yellow) x 10 m length
- Plastic waste bag (approx. 120 x 180 cm)
- Cable ties x 2
- Roll of warning tape
- Laminated instruction sheet
- 1 x Clay Equipment resistance table (encapsulated)
- 1 x Encapsulated guide to waste disposal responsibilities (Appendix A)
4.2 Ready-mixed clay leak sealing putty

The putty is intended to stop leaks from tanks, drums, pipework etc. The putty can be pressed into a hole to form temporary seal.

Component parts
a. Grab Pack bag (empty)
b. Ready-Mixed clay sealing putty
c. Clay Drain Mat
d. Disposable Gloves
e. Absorbent Pads
f. Polyboom
g. Plastic Waste Bags
h. Cable Ties
i. Environment Agency warning tape
j. Laminated Instruction Sheet (not shown)
k. Clay Equipment Resistance table (not shown)
l. Laminated guide for waste disposal responsibilities (not shown)
4.3 Clay Drain Mat 450mm x 450mm
The purpose of the clay mat is to provide a temporary seal for open drain gratings to prevent pollutants from entering drainage systems and to provide containment.

The mats can be cut to cover unusual shaped drain gratings or gullies or overlapped to cover a larger grating. They can also be used to plug unusual shaped leaks in tanks, containers or bunds.

The clay items in the pack have a 5-year shelf life and should be replaced when out of date.

4.4 Oil Absorbent Pads
The oil absorbent pads are designed to absorb small spillages of oil or hydrocarbons (petrol, etc). They are capable of soaking up liquid to 25 times their own weight. The pads are equally effective on hard standing and on water and will generally not soak up water.

The pads will absorb the following pollutants:
- Most fuel oils
- Lubricating oils
- Hydraulic oils
- Processing oils
- Circulating oils
- Vegetable oils
- Solvents
- Spirit-based paints

4.5 Polyboom (Yellow 10m length)
The Polyboom is a one-use water filled boom, which is to be used on land to provide containment.

It can be used to provide containment of spillages, contaminated fire run-off water, foam or to divert such material to a designated containment area or oil separator. The polyboom can be cut to length as required.

The boom is resistant to most chemicals but may be adversely affected by very aggressive solvents such as acetone.

4.6 EA Tape, Plastic Waste Bag and Cable Ties
These items of equipment are provided to enable the waste material created by the use of the grab pack contents to be disposed of safely.

4.7 Equipment Instruction Sheet
The encapsulated instruction sheet is designed to be used at the scene of operations. It contains brief guidance on the use of:
- Ready-mixed clay leak sealing putty
- Disposable clay drain sealing mat
- Polyboom

4.8 Clay Resistance Encapsulated Sheet
This sheet is also intended for use at the scene of operations. It contains information on how 21 of the most common pollutants affect the surface and structure of the clay
products. It also shows an approximate timescale that the clay product will keep an effective barrier against the pollutant.

5 **Operation**

5.1 **Using Clay Sealing Putty**

Remove the screw lid wearing protective gloves.

Scoop out substantial handful and push the putty firmly down or away from the user over the hole (to protect from effects of product spraying during sealing) into the damaged area of the vessel.

![Warning]

The applied putty should not be disturbed as this may restart the leak. In situations where the surface to be sealed is torn or jagged care should be taken not to damage any PPE worn.

Depending on the nature of the container breach and the materials involved, the putty may be able to hold back pressures of around 0.25 bar or 2.5m head.

5.2 **Using Clay Drain Mat**

Open pack and peel off plastic sheet from one side of mat.

Place this side down over the area to be sealed and press down gently around its edges by foot, to create a seal with the drain surround. The film on the topside of the mat should be left in place to prevent contamination of the operator’s boot.

5.3 **Gloves**

Use the gloves when using either the clay drain mats or the clay sealing putty.

The gloves will prevent the clay from sticking to hands and fire gear. The gloves should be disposed of after use (see 5.6).

5.4 **Using Absorbent Pads**

Absorbent pads should be placed in a single layer onto a spillage and only replenished once saturated with product.

![Warning]

Hazardous materials still retain their hazardous properties when absorbed and this must be considered when handling soiled pads.

5.5 **Using Polyboom**

Unroll boom and seal one end with either an overhand knot or by using cable ties provided.

Position boom and fill two large outer compartments with water from a hose reel.

Seal open end with second cable tie.

- To prevent tearing the boom should not be moved once filled with water.
- The boom is resistant to most chemicals but may be adversely affected by very aggressive solvents such as acetone.

To dispose of the Polyboom after use, untie one end and allow it to drain.
Fold up the boom and place in the plastic disposal bag that is part of the grab pack. The Polyboom is not reusable.

5.6 Disposal of Environment Agency Supplied Equipment

A plastic bag, cable tie and warning tape are provided in each grab pack to contain any soiled materials. Used absorbent pads, polyboom, etc. should be placed inside the bag, sealed with the tie and then marked with the EA tape.

Petrol or other flammable or highly flammable liquid soaked absorbents should not be placed in sealed bags or drums and consideration should be given to not using absorbent pads on these types of spillages. If safe to do so, such products should be allowed to evaporate in the open air.

The normal responsibility for disposal of contaminated environmental protection equipment is shown in table 1.

Disposal arrangements should be made via Fire Control.

<table>
<thead>
<tr>
<th>Location</th>
<th>Responsible Operator</th>
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</thead>
<tbody>
<tr>
<td>Playing fields, public open spaces, beaches</td>
<td>Local Authority</td>
</tr>
<tr>
<td>Some public roads</td>
<td></td>
</tr>
<tr>
<td>Private property</td>
<td>Landowner or owner/occupier</td>
</tr>
<tr>
<td>Major roads</td>
<td>Highways Agency (Road Service in NI) or their representatives</td>
</tr>
</tbody>
</table>

**NOTE**: Contaminated spill kits should not be transported in FRS vehicles or to FRS properties

Bagged oil/petrol contaminants may be left on the nearest verge, away from traffic and pedestrians and a precise location given to Fire Control, who will pass on the details to the responsible operator.

5.7 Reordering Environment Agency Grab Pack Equipment

The Environment Agency provides all equipment free of charge; the normal FRS ordering process must be used.

Where Environment Agency equipment from two or more grab packs is used at a single incident an Environment Agency Notification of Use of Equipment form must also be completed.

6 Advantages/Disadvantages/Limitations

6.1 Advantages

The blue absorbent pads are made from a versatile material, which can be widely used to contain minor spillages close to their point of release.

The products contained within the Environment Agency Grab Pack are standard equipment and therefore they can be supported by additional equipment to provide greater protection as an incident escalates.
6.2 **Disadvantages/Limitations**
The blue oil absorbent pads will not absorb water-based or water-soluble pollutants. Some of the clay-based products have a five-year life span. Stock should be rotated to reflect the best before dates.

7 **Tests**
Test the equipment contained within the Environment Agency Grab Pack in accordance with Standard Test Procedure (STP) for Environment Agency Grab Pack.

8 **Technical Information**
Table 2 shows the technical information relevant to this piece of equipment.

<table>
<thead>
<tr>
<th>Table 2 – Technical Specification</th>
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<tbody>
<tr>
<td><strong>Chemical Spill Equipment</strong></td>
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<tr>
<td><strong>Oil Spill Equipment</strong></td>
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<tr>
<td><strong>Clay Putty</strong></td>
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9 **Further Reading**

“In Partnership Towards a Safer and Cleaner Environment” training DVD issued by the Environment Agency for FRS and contained within the Environmental SOP training package provides practical advice on using environmental protection equipment operationally.

Further information regarding this equipment and the principles of operation can be found in the following documents:

- Environmental Protection Handbook
- Operational Article - Waste Disposal Responsibilities
- SOP Environmental Protection
## Document Audit Information

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<thead>
<tr>
<th>Role</th>
<th>Details</th>
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<tbody>
<tr>
<td>Director Accountable</td>
<td>Steve Demetriou</td>
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<td></td>
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<td>Operational Development Manager</td>
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<td>Direct enquiries to</td>
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<tr>
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<td>Ways of Working Officer</td>
</tr>
<tr>
<td>Date Implemented</td>
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</tr>
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