

# 3M™ Oil & Petroleum Sorbents

## Use

For control of spills of hydrocarbons on water or land. 3M™ Oil & Petroleum Sorbents repel water and float (as long as surfactants are not also present). They are typically used on water to contain and adsorb hydrocarbons that are on the surface or in an emulsion in the water.

## Product Description

3M™ Oil & Petroleum Sorbents are made from inert, synthetic fibres principally polypropylene and polyester. They are available in a wide range of formats and are lightweight and nominally dust-free. They have a high absorption capacity which minimises the amount of waste for disposal. HP Series antistatic products have a charge dissipating polypropylene scrim and are packaged in charge dissipating film.

## Colour

White (sheets and rolls) and red / orange (booms and pillows).

## Selection Guide

- Antistatic Products – The HP antistatic products are designed for use in low temperatures and low humidity to help reduce the risk of sparking.
- Booms – May be connected together to form barriers. These are anchored at each end and positioned across still or moving water to contain, channel and adsorb oil spills. Suitable for use on rivers and in harbours.
- Folded – Combines four formats in one product. It is perforated every 16 inches (40 cm) and can be unfolded to be used as booms, pillows or sheets.
- Minibooms – Generally on-land applications to contain and adsorb spills.
- Pillows – Used for bulk absorption of oil on land or water. Particularly useful in drains to act as interceptors.
- Pads – A highly adaptable format. They can be used on water to pick up oil covering large surface areas and in wiping applications.
- Rolls – For fast coverage of large surface areas of water, they can be easily torn to length. Also used as a mat to keep shorelines or banks clean and to place used sorbents upon.
- Spill Kits– May contain different types of sorbents, personal protective equipments and temporary disposal bags. Compact for easy storage and quick response.

## Typical Liquids Adsorbed

3M™ Oil & Petroleum Sorbents are suitable for adsorbing hydrocarbons and non-polar organic solvents, eg., oil, paraffin, diesel, benzene, alcohols, toluene, trichloroethane, esters and ethers.

## Limitations of Use

3M recommends that a compatibility test with the liquid of interest be carried out prior to using the sorbent. For use in temperature over 60°C it is essential that such a compatibility test is made prior to use. Do not use on aqueous liquids or aggressive liquids, strong acids, caustic oxidisers or reactive chemicals. In particular there is a risk of degradation with the following: oleum, chlorosulphonic acid, liquid bromine, fuming nitric acid, chromic acid, sulphuric acid and hydrogen peroxide.

## Precautions

3M™ Oil & Petroleum Sorbents are not in themselves hazardous products, however, they take on the characteristics of the liquids they adsorb. Adequate precautions should be taken when handling or storing hazardous/flammable materials and appropriate personal protective equipment should be worn. Users should be informed of the risks incurred in use, storage and disposal of used sorbents.

## Disposal

Dispose of used sorbents only in accordance with local and national regulations. Disposal companies should be consulted for their recommendations.

## Waste Minimisation

3M recommends that waste streams should be minimised wherever possible. 3M sorbents promote minimisation by only being a small part of the total waste. In addition where laws allow, 3M™ Petroleum Sorbents can be disposed of by incineration yielding less than 0.2% ash (ASTM D-482). The high energy value of the sorbents is also favourable for incineration and waste-to-fuel systems.

## Absorption / Sorbency

The sorbent capacity quoted in the table below is based on testing per ASTM F 726 “Standard Test Method for Sorbent Performance of Adsorbents.” In brief, the sorbent samples were immersed in 20 weight motor oil, drained and weighed. In the 1981 version of the standard, samples are immersed for a variable period of time in an attempt to make sure the sorbent is saturated. The sorbent is then drained horizontally. In the 2006 version of the standard, samples are immersed for 15 minutes and then most types are drained vertically. Capacity according to both versions of the standard is presented. Even though the sorbents have not changed, the test methods have, and thus the numbers are different. **These numbers are nominal; there will naturally be variability in sorbent performance.** Capacity and speed of absorption will differ depending on the liquid’s polarity, surface tension and viscosity. Ambient temperature may also affect results. Therefore, these numbers may not be directly applicable to your specific use.

<b>Product</b>	<b>Product dimensions</b>	<b>Products / Case</b>	<b>Case Shipping Weight (kg)</b>	<b>Nominal capacity/ Product (Litres) ASTM F 726-81</b>	<b>Nominal capacity/ Product (Litres) ASTM F 726-06</b>
<b>Booms</b>					
T-270	20 cm diameter x 3 m	4	25	74	51 - not fully saturated after 15 minute test
T-280	Two side-by-side 10 cm diameter x 3 m	4	12.5	38	26 - extrapolated from T-270 testing, not fully saturated after 15 minute test
<b>Folded</b>					
P-FL550DD high capacity	12 cm x 15 m 45cm x 15m (open)	3	8.2	40	32.3
<b>Minibooms</b>					
T-4	7.5 cm diameter x 121 cm	12	5.9	3.8	4.1
<b>Pillows</b>					
T-240	12 cm x 36 cm x 96 cm	10	12.5	13.0	15.5
<b>Pads</b>					
HP-156 high capacity	43 cm x 48 cm x 0.5 cm	100	5	1.4	1.0
HP-255 high capacity	43 cm x 48 cm x 1.0 cm	50	5	2.5	0.9
T-157	86 cm x 96 cm	50	18	6.0	5.0
<b>Rolls</b>					
HP-100 high capacity	97 cm x 44 m	1	9.1	280	196

<b>Kit Contains</b>	<b>SRCB-Petro</b>	<b>OSRK-45</b>	<b>OSRK-190</b>
Pads HP156	10	17	25
Mini Booms T4	4	6	-
Double Booms T280	-	-	2
Folded P-FL550DD	-	-	2
Disposable Half Face Respirator 4251 (A1P2)	1	1	2
3M™ Fahrenheit™ Safety Goggles	1	1	2
Solvent & Oil Resistant Gloves	1 pair	1 pair	2 pairs
3M Protective Coverall 4530+ (XL)	1	1	2
Contaminated Waste Bag	1	1	5
Cabin Bag	1	-	-
Storage Drum	-	1 (60L)	-
Wheely Bin	-	-	1 (240L)
Spill Response Procedure	1	1	1
Total Sorbent Capacity	25 Litres	45 Litres	190 Litres
Approximate Kit Weight	3.7Kg	6Kg	30Kg

**Important Notice to User:**

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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