

Technical Data Sheet



Maintenance Sorbents

Use

For control of accidental and routine leaks, drips and spills of oils, lubricants and other non-aggressive liquids found commonly in industry. The sorbents are designed to help maintain a clean and safe working environment.

Product Description

3M[™] Maintenance Sorbents are made from inert, synthetic fibres principally of polypropylene and polyester. They are available in a wide range of formats and are lightweight and dust free. They have a high absorption capacity which minimises the amount of waste for disposal.

Colour

Light grey - darkens when wet as an indication of saturation level.

Selection Guide

- Multiformat: Combines four formats in one product. It can be used as booms, pillows, sheets or rolls.
- Pads: For use in and around equipment to catch leaks and drips.
- Half Pads: A smaller, double thickness sheet for use in confined areas.
- **Minibooms:** Ideal for placing around the base of equipment to contain and control leaks and spills.
- **Minipillows:** High capacity pillow for use at the source of a leak. Tear resistant, they can be left in place for long periods.
- **Rolls:** Particularly suitable for covering large areas, rolls can be cut to custom-fit equipment and work surfaces.
- **Drum Covers:** A circular cover and skirt to absorb liquids on and around the drum.
- **Coated and Uncoated Rugs:** Absorbent rugs help keep floors clean and safe by absorbing oils and grease from shoes, equipment and vehicles.

Absorption / Sorbency

The case sorbency quoted in the table is based on the American Standard Test Method (ASTM) F726-81 using a medium viscosity fluid (20 weight motor oil). Another method of measuring absorbent performance is by calculating the sorbency ratio. This is the ratio of liquid weight absorbed to the dry absorbent weight.

Sorbency =
$$\frac{\text{wet weight - dry weight}}{\text{dry weight}}$$

The sorbency ratio and speed of absorption depend upon the ambient temperature, the polarity of the liquid, its surface tension and viscosity. For 3M[™] Maintenance Sorbents the sorbency ratio is 15-20 for most of the common workplace liquids.

Physical Data

NUMBER	SIZE (CM)	NO./ CASE	CASE SORBENCY (LITRES)	CASE WEIGHT (KG)
Multiformat				
M-F2001	12 x 1520 (40)	3	119	8.2
Pads				
M-A2002	40 x 52	100	142	6.4
Rolls				
M-B2001	40 x 4600	1	117	5.9
M-B2002	96 x 4600	1	288	13.6
Drum Covers				
M-R2001	56ø	25	72	3.6
Minipillows				
M-N1001	18 x 38	16	32	3.3
Minibooms				
M-M1001	7.5ø x 120	12	45	5.5
M-M1002	7.5ø x 240	6	45	5.5
M-M1003	7.5ø x 360	4	45	5.5
Rug (uncoated)				
M-G1001	91 x 9100	1	120	25.0
Rug (coated)				
M-G1301	91 x 3000	1	40	10.5





Typical Liquids Absorbed

3M[™] Maintenance Sorbents are suitable for absorbing oils, lubricants, petrol cutting fluids and coolants. They absorb most liquids in the following chemical groups: alcohols, esters, halocarbons, hydrocarbons, silicones.

LIQUIDS	EXAMPLES		
Coolants / Heat Transfer Fluids	Water, Alcohol, Oils, Glycols		
Lubricants	Oils, Water, Silicone Oils		
Hydraulic Fluids	Hydraulic Oils, Water, Oil/ Water emulsions		
Cutting Oils / Forming Fluids	Oils (mineral, emulsified)		
Solvents	Turpentine, Toluene, Xylene, Paraffin		
Crankcase Oils	Oils (natural, synthetic)		

Limitations of Use

Do not use on 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. 3M recommends that a compatibility test be carried out prior to using the absorbent with the liquid concerned. For use in temperatures over 60°C it is essential that such a compatibility test is made prior to use.

Precautions

3M[™] Maintenance Sorbents are not in themselves hazardous products, however, they take on the characteristics of the liquids they absorb. Adequate precautions should be taken when handling or storing hazardous / inflammable 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. Options may include incineration and landfilling depending on regulations.

Waste Minimisation

3M recommends that waste streams should wherever possible be minimised. Sorbents by 3M promote minimisation by only being a small part of the total waste. In addition, where laws allow, 3M[™] Maintenance Sorbents can be disposed of by incineration yielding less than 0.02% ash (ASTM D-482). The high energy value of the sorbents (46,000 KJ / Kg) is also favourable for incineration and waste-to-fuel systems. Furthermore, sorbents by 3M may be wrung out and reused (90% recovery using mechanical wringing according to ASTM F726-81). The recovered liquid may itself then be reused or disposed of.

Flammability

3M[™] Sorbents have been tested by an independent test house for flammability characteristics. Tests were carried out on long-term storage, heat build-up and ignition from three sources: spark, flame and cigarette using oil and diesel at 0%, 50% and 100% saturation levels. Tests were compared to testing on clay granules and sawdust. The results which are available in a full report can be summarised: "3M[™] Sorbents take on the properties of the liquid absorbed and do not present a greatly increased flammability hazard over other common absorbents. No heat build-up occurs in long-term storage".



Occupational Health & Environmental Safety Group

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