





Maintenance Sorbents Reference Guide

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 fibers 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 minimizes the amount of waste for disposal.

Color

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

Selection Guide

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

Physical Data

Product No.	Size	Case Sorbency (Gallons)	Billing Unit	Quantity Per B.U.
Pads/Sheets				
M-PD1520DD	15.5 in x 20.5 in	37.5	CASE	100 pads
M-PD720GG	7.5 in x 20.5 in	31.5	CASE	100 pads
Multiformat				
M-FL550DD	5 in x 50 ft	31.5	CASE	3 cartons
Drum Covers				
M-DC22DD	22 in	19	EACH	25 covers
Rolls				
M-RL15150DD	15 in x 150 ft	31	EACH	1 roll
M-RL33150DD	33 in x 150 ft	66	EACH	1 roll
M-RL38150DD	38 in x 150 ft	76	EACH	1 roll
Minibooms				
M-MB304	3 in x 4 ft	12	CASE	12 booms
M-MB308	3 in x 8 ft	12	CASE	6 booms
M-MB312	3 in x 12 ft	12	CASE	4 booms
Pillows				
M-PL715	7 in x 15 in	8	CASE	16 pillows
Rugs				
M-RGC36100E	36 in x 100 ft	10.5	EACH	1 roll
M-RG36300E	36 in x 300 ft	32	EACH	1 roll

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.

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

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.

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.

Waste Minimization

3M recommends that waste streams should wherever possible be minimized. Sorbents by 3M promote minimization 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 favorable 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 summarized: 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.

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