Paul N. Gardner Company

MOISTURE PERMEABILITY CUPS
MOISTURE METER

Instructions for using the GARDCO Moisture Permeability Cups.



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Moisture Permeability Cups

GARDCO Moisture Permeability Cups are used to evaluate the passage of water vapor and other liquid vapors through paint, varnish, thin plastic films, and related materials. Designed to be in complete compliance with ASTM Method D1653, the cups are available in 10 cc and 25 cc versions.

A test specimen is sealed across the cup opening, separating the contents of the cup from the surrounding environment. The assembled cup is weighed at intervals under controlled conditions. The rate of mass change is used with the exposed specimen area to determine vapor transmission.

Available Models



Moisture Permeability Cup - 10 cc

10 cc cup for evaluating vapor transmission through films.

Buy at gardco.com



Moisture Permeability Cup - 25 cc

25 cc cup for evaluating vapor transmission through films.

Buy at gardco.com

Instructions for Use

1. Place either a test liquid or a desiccant in the cup, depending on the specified test conditions.
2. Cut a specimen of the test material to the outside dimensions of the clamp ring. Refer to ASTM D823 and ASTM D4708 for specimen preparation.
3. Place the specimen on the top surface of the cup, using gaskets if required. Tighten the cap to seal the specimen against the cup surface.
4. Accurately weigh the complete assembly and place it in the specified controlled atmosphere.
5. Weigh the assembly periodically to determine its weight loss or gain. Calculate the vapor-transmission rate from the recorded weight changes.

Note: The 10 cm^2 cup allows the use of a smaller specimen and less desiccant. Its approximate weight without gaskets is 88 g.

Available Accessories



Rubber Neoprene Gasket

Gaskets for use when sealing the test specimen against the cup surface. Available for 10 cc and 25 cc cups.

Buy at gardco.com

Polyethylene Gasket

Polyethylene gasket for use with the 10 cc moisture permeability cup only.

Buy at gardco.com



Polyethylene Gasket L

Polyethylene gasket for use with the 25 cc moisture permeability cup only.

Buy at gardco.com



Single Bar 2", 3 mils

Fixed-gap applicator for preparing test films. Provides a 2 inch film width and a theoretical wet film thickness of 3 mils.

Buy at gardco.com

Moisture Permeability Cups

Available Accessories



Microm II, 2”

Adjustable film applicator for preparing test films with selectable gap clearances.

Buy at gardco.com



Intelligent PM Series Balance 300g

Top loading balance with a 300 g capacity for weighing the cup assembly before and during testing.

Buy at gardco.com

Leneta RP-1K Release Paper

Release paper for use during test-film preparation.

Buy at gardco.com