



Medline Industries, LP

SensiCare Silk
Powder-Free Nitrile
Examination Gloves

MDS2585 Series

Permeation Resistance to
Chemotherapy Drugs

Representative Drugs Tested

The chemotherapy gloves used in testing per the ASTM D6978 test method incorporate the different classes of clinical drugs. This class representation is important since it would be burdensome to test against every chemotherapy drug in the market. The ASTM test methods require that a minimum of nine currently used drugs are tested.

The clinical drugs selected must include at least the following seven drugs:

- Carmustine
- Cyclophosphamide
- Doxorubicin HCl (Adriamycin)
- Etoposide
- Fluorouracil (Adrucil)
- Paclitaxel (Taxol)
- Thiotepa

An additional two clinical drugs can be selected from a list provided by ASTM in the test method. The clinical drugs are all purchased from pharmaceutical drug manufacturers or authorized distributors. Each test drug is prepared using the manufacturer's recommended solvent.

The drug solution is prepared with the recommended solvent and at the highest concentration of the drug to which a healthcare worker might be exposed during handling.

Breakthrough Time

The result for each chemo drug is reported at "breakthrough time" or the time it takes for the chemical to permeate from the outer surface of the glove to the inside surface. A higher breakthrough time means better protection. The breakthrough time should be longer than the glove wear time in order to ensure adequate protection.

PERMEATION AND BREAKTHROUGH RESISTANCE MEDICAL EXAM GLOVES

PRODUCT: NITRILE EXAMINATION GLOVES, MDS2585 SERIES

Drug Name Concentration	Breakthrough time in min.
Carmustine (BCNU) 3.3 mg/ml	3.6
Cyclophosphamide (Cytoxan) 20.0 mg/ml	>240
Doxorubicin Hydrochloride 2.0 mg/ml	>240
Etoposide (Toposar) 20 mg/ml	>240
Fluorouracil 50 mg/ml	>240
Paclitaxel (Taxol) 6.0 mg/ml	>240
Thiotepa 10.0 mg/ml	28.8
Cisplatin 1.0 mg/ml	>240
Dacarbazine (DTIC) 10 mg/ml	>240
Methotrexate 25 mg/ml	>240
Mitomycin C 0.5 mg/ml	>240
Vincristine Sulfate 1.0 mg/ml	>240

Warning: Not for Use with Carmustine and Thiotepa

***Meets USP 800 Personal Protection Equipment requirement for use of chemotherapy gloves when handling hazardous drugs when used in accordance to the guidelines set forth in the USP 800 chapter.*