

# Chemical Services: Chemotherapy/Toxic Chemical Resistance

## Permeation Resistance Testing of Rubber & Plastics

It is now common practice to have rubber and plastic materials, gloves, chemical protective clothing (CPC) and medical devices analyzed for permeability against numerous laboratory reagents, general chemicals, hazardous chemicals and hospital substances. ARDL understands the importance of, and can offer, expert advice regarding the selection and testing of the most appropriate materials for a particular application along with the corresponding shelf and service lives of such materials.

## Membrane Permeability Testing of Protective Clothing & Coated Fabrics

Evaluation is also often required or recommended on most gloves and other articles of CPC as well as on some medical devices. ARDL helps both CPC/device manufacturers and CPC/device users evaluate and minimize product contamination to provide unsurpassed personal protection.

## Testing of Gloves with Chemotherapy Drugs & Industrial Chemicals

The US FDA requires permeation resistance testing of any gloves that may come in contact with chemotherapy drugs. ARDL is the only laboratory that can assess your products against chemotherapy drugs and help you obtain FDA approval.



## List of Common Chemotherapy Drugs

Amifostine	Bleomycin Sulfate	Carboplatin
Carmustine (BiCNU)	Cisplatin	Cyclophosphamide
Cytosar® U	Dacarbazine	Daunoxome
Daunorubicin HCl	DaunoXome	Dexrazoxane
Docetaxel	Doxorubicin HCl	Etoposide
5-Fluorouracil	Fludarabine Phosphate	Gemcitabine
Idarubicin HCl	Ifosfamide	Irinotecan HCl
Intron® A	Leucovorin Calcium	Leustatin™
Lupron Depot®	Mechlorethamine HCl	Melphalan
Mesna	Mitomycin-C	Mitoxantrone
Oxaliplatin	Paclitaxel	Pamidronate
Proleukin	Tamoxifen	Teniposide
Thiotepa	Topotecan HCl	Vinblastine Sulfate
Vincristine Sulfate	Vinorelbine Tartrate	

## Anti-Viral Drugs Commonly Used for AIDS Treatment

Cytovene	Retrovir®	
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AKRON RUBBER DEVELOPMENT LABORATORY, INC.

Rubber. Plastic. Latex.

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## Chemical Resistance Testing of Rubber & Plastics

Your rubber and plastic materials, gloves, chemical protective clothing (CPC) and medical devices may need to be tested for safety in chemical rich environments. ARDL can perform in-depth analysis against a wide variety of chemical reagents used in hospital settings, military and aerospace applications and household chemicals.

### Recommended Liquid Test Chemicals for Permeation Evaluation

Acetone	Acetonitrile	Carbon Disulfide
Diethylamine	Dichloromethane	Dimethylformamide
Ethyl Acetate	n-Hexane	Methanol
Nitrobenzene	Sodium Hydroxide	Sulfuric Acid
Tetrachloroethylene	Tetrahydrofuran	Toluene
Methyl Chloride (99.5%) (Gaseous)		

### Most Commonly Encountered Chemical Challenges

Alcohols	Formaldehyde	Glutaraldehyde (Cidex)
Oxidizing Agents	Phenolics	Quaternary Amines
Surfactants		

