



TouchNTuff™ 93-800

Chemical Permeation
Breakthrough Times

EN ISO 374

| MATERIAL | | | | Neoprene, Nitrile, NRL | | MATERIAL | | | | Neoprene, Nitrile, NRL | | |
|----------------|--------------------|--|-------|------------------------|--------|----------------|----------------------|--------------------------|-------|------------------------|--------|---|
| THICKNESS (MM) | | | | 0.45 mm | | THICKNESS (MM) | | | | 0.45 mm | | |
| CAS | CHEMICAL NAME | | % | PS* | | CAS | CHEMICAL NAME | | % | PS* | | |
| 107-87-9 | 2-Pentanone | | 100.0 | L | 8' | C | 67-56-1 | Methanol | 100.0 | L | 78' | C |
| 96-22-0 | 3-Pentanone | | 100.0 | L | 7' | C | 78-93-3 | Methyl ethyl ketone | 100.0 | L | 11' | C |
| 64-19-7 | Acetic acid | | 100.0 | L | 81' | C | 108-10-1 | Methyl isobutyl ketone | 100.0 | L | 11' | C |
| 67-64-1 | Acetone | | 100.0 | L | 21' | C | 80-62-6 | Methyl methacrylate | 100.0 | L | 11' | C |
| 75-05-8 | Acetonitrile | | 99.8 | L | 48' | C | 110-54-3 | n-Hexane | 100.0 | L | 60' | C |
| 107-13-1 | Acrylonitrile | | 100.0 | L | 29' | C | 7697-37-2 | Nitric acid | 65.0 | L | > 480' | C |
| 7664-41-7 | Ammonia, gas | | 100.0 | G | 61' | C | 8032-32-4 | Petroleum ether | 100.0 | L | 216' | C |
| 1336-21-6 | Ammonium hydroxide | | 25.0 | L | 71' | C | 108-95-2 | Phenol | 10.0 | L | 112' | C |
| 71-43-2 | Benzene | | 100.0 | L | 7' | C | 7664-38-2 | Phosphoric acid | 85.0 | L | > 480' | C |
| 75-15-0 | Carbon disulfide | | 100.0 | L | 2' | C | 1310-73-2 | Sodium hydroxide | 40.0 | L | > 480' | C |
| 67-66-3 | Chloroform | | 100.0 | L | 2' | C | 8052-41-3 | Stoddard solvent | 100.0 | L | > 480' | C |
| 108-93-0 | Cyclohexanol | | 100.0 | L | > 480' | C | 100-42-5 | Styrene | 100.0 | L | 13' | C |
| 108-94-1 | Cyclohexanone | | 100.0 | L | 33' | C | 7664-93-9 | Sulfuric acid | 96.0 | L | 168' | C |
| 75-09-2 | Dichloromethane | | 100.0 | L | 2' | C | 108-88-3 | Toluene | 100.0 | L | 4' | C |
| 109-89-7 | Diethylamine | | 100.0 | L | 3' | C | 79-01-6 | Trichloroethylene | 100.0 | L | 3' | C |
| 68-12-2 | Dimethylformamide | | 100.0 | L | 70' | C | 1330-20-7 | Xylene, isomeric mixture | 100.0 | L | 9' | C |
| 131-11-3 | Dimethylphthalate | | 100.0 | L | > 480' | C | DIESTONE D | | | L | 27' | C |
| 64-17-5 | Ethanol | | 70.0 | L | > 480' | C | Diestone DLS | | | L | 55' | C |
| 64-17-5 | Ethanol | | 100.0 | L | 146' | C | Diestone SR | | | L | 45' | C |
| 141-78-6 | Ethyl acetate | | 100.0 | L | 10' | C | Loctite Frekote 44NC | | | L | 153' | C |
| 50-00-0 | Formaldehyde | | 37.0 | L | > 480' | C | Skydrol 5 | | | L | 393' | C |
| 64-18-6 | Formic acid | | 98.0 | L | 169' | C | Skydrol 500 B Type 4 | | | L | 480' | C |
| 142-82-5 | Heptane | | 100.0 | L | > 480' | C | Skydrol LD4 | | | L | 324' | C |
| 7664-39-3 | Hydrofluoric acid | | 40.0 | L | > 480' | C | Skydrol PE5 | | | L | 233' | C |
| 7722-84-1 | Hydrogen peroxide | | 30.0 | L | > 480' | C | SOCOSOLV 99/1 | | | L | 15' | C |
| 67-63-0 | Isopropanol | | 70.0 | L | > 480' | C | White spirit | | | L | > 480' | C |
| 67-63-0 | Isopropanol | | 100.0 | L | > 480' | C | | | | | | |

PERMEATION BREAKTHROUGH TIMES (MINUTES)

| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------|-------------------|-------|-------------------|---------|-----------------|-------|
| < 10 | 10-30 | 30-60 | 60-120 | 120-240 | 240-480 | > 480 |
| Not recommended | Splash protection | | Medium protection | | High protection | |

Permeation breakthrough time is the time (in minutes) for the chemical in question to be permeating through the material at a rate of 1.0 µg/cm²/min (as per EN ISO 374).

PS = Physical State,
G = Gas, L = Liquid

The information may comprise of experimental data, or estimations based on extrapolations from experimental data. This information is intended to enable the Health and Safety professional at your organization to be able to make more informed decisions about which Ansell products will offer the greatest protection in the intended circumstances, and assist with carrying out a risk assessment for your organization. Permeation times do not equate to safe wear time. Safe wear time may vary depending on whether or not the PPE is donned correctly, the temperature of the surroundings, the toxicity of the chemical, and a number of other factors. It is the responsibility of your organization's Health and Safety professional to undertake a risk assessment before choosing the appropriate PPE for the task at hand. If you would like to discuss any aspect in more detail, please contact us. Estimations of the barrier properties of gloves and PPE are based on extrapolations from laboratory test results and information regarding the composition of the chemicals. Synergistic effects of mixing chemicals have not been accounted for. Estimations are subject to change if new testing is carried out providing better grounds for extrapolations. For these reasons, any information in this report must be advisory only and Ansell fully disclaims any liability including warranties related to any statement contained herein.