

# CHEMICAL RESISTANCE CHART

		PVC		ACIFORT		PUROFORT		CHEMICAL RANGE		
		1. PVC Consumer & Basic	2. PPE	3. PVC Food	4. PPE / Agri	5. Acifort Food	6. Purofort Upper & Sole	7. Heavy Duty	8. HazGuard	9. HazGuard Ultra
		162xx 220PC 380PP 380VC 380VP 386VP 388VP 553x0 814x B350611 K1xxxxx K2xxxxx K3xxxxx K4xxxxx K5xxxxx K6xxxxx W481211 W486711 W681211	142xxxx H14xxxx H171311 H242711 H812511 V442011 NB2xxxx	171BV A571411 B370411 NB1JB01	A242A31 A252931 A442x3x A452031.NA B440x31 B550631 H242711.CH H242711.FL K240031.AR W486033 MZ2LE01 MZ2LE02 NA0HD01 NA2HD01 NA0KL01 NA2KL01	A181331 A781331 A782631 B180331 B780331	C662xxx C762xxx CA61xxx CB61131 CB61631 CC22A33 CC22A33.CH D760xxc DA60131 E652xxx E662xxx E762xxx E902033 EA51xxx EA61231 EC02A33 G762xxx GA61xxx J760933 JA60xxx EG62E33 EH62F33 FG60E33 FH6AF33 LJ2xxxx L2KHT01	A4422B1 A4422B1.ESD NAEJF01	A442AB1 A442AB1.ESD	87012.EU
		+++ = excellent ++ = good + = fair - = not recommended								
INORGANIC ACIDS	sulphuric acid (< 10%)	+++	+++	+++	+++	+++	-	+++	+++	+++
	sulphuric acid (con.)	-	-	-	-	-	-	-	+	-
	hydrochloric acid (< 10%)	+++	+++	+++	+++	+++	-	+++	+++	+++
	hydrochloric acid (con.)	++	++	++	++	++	-	++	++	++
	nitric acid (< 5%)	++	++	++	++	++	+	++	++	++
	nitric acid (5-25%)	+	+	+	+	+	-	+	++	++
	nitric acid (25- 50%)	-	-	-	-	-	-	-	+	+
	phosphoric acid (< 50%)	++	++	++	++	++	-	++	++	++
ORGANIC ACIDS	hydrofluoric acid (< 30%)	++	++	++	++	++	-	++	++	++
	chromium acid (sol.)	+	+	+	+	+	-	+	+	+
	acetic acid (< 10%)	+++	+++	+++	+++	+++	+	+++	+++	+++
	butyric acid (< 20%)	++	++	++	++	++	+	++	++	++
	butyric acid (con.)	+	+	+	+	+	+	+	++	++
	citric acid (sol.)	+++	+++	+++	+++	+++	+	+++	+++	+++
	lactic acid (< 10%)	++	++	++	++	++	+	++	++	++
	formic acid (< 10%)	++	++	++	++	++	-	++	++	++
BASES	oxalic acid	++	++	++	++	++	-	++	++	++
	ammonia (< 5%)	+++	+++	+++	+++	+++	++	+++	+++	+++
	ammonia (con.)	++	++	++	++	++	+	++	++	++
	barium hydroxide (sol.)	++	++	++	++	++	-	++	+++	+++
	calcium hydroxide	++	++	++	++	++	+	++	+++	+++
	magnesium hydroxide (sol.)	++	++	++	++	++	-	++	+++	+++
	caustic soda (< 50%)	++	++	++	++	++	+	++	+++	+++
SALT IN SOLUTION	aluminium acetate	+++	+++	+++	+++	+++	++	+++	+++	+++
	aluminium chloride	+++	+++	+++	+++	+++	+	+++	+++	+++
	ammonium hydrogen carb.	+++	+++	+++	+++	+++	+	+++	+++	+++
	ammonium chloride	+++	+++	+++	+++	+++	+	+++	+++	+++
	ammonium sulphide	+++	+++	+++	+++	+++	++	+++	+++	+++
	antimony trichloride	++	++	++	++	++	+	++	++	++
	barium chloride	+++	+++	+++	+++	+++	++	+++	+++	+++
	potassium carbonate	+++	+++	+++	+++	+++	-	+++	++	++
	potassium chlorate	++	++	++	++	++	+	++	++	++
	potassium nitrate	+++	+++	+++	+++	+++	+	+++	+++	+++
	potassium permanganate	++	++	++	++	++	+	++	++	++
	lead acetate	+++	+++	+++	+++	+++	++	+++	+++	+++
	lead nitrate	+++	+++	+++	+++	+++	+	+++	+++	+++
	magnesium carbonate	+++	+++	+++	+++	+++	+	+++	+++	+++
	magnesium chloride	+++	+++	+++	+++	+++	++	+++	+++	+++
	mercuriumchloride	-	-	-	-	-	+	-	-	-
	sodium acetate	+++	+++	+++	+++	++	-	+++	++	++
	sodium chlorate	++	++	++	++	++	+	++	++	++
	sodium chloride	+++	+++	+++	+++	+++	+++	+++	+++	+++
	sodium fluoride	+++	+++	+++	+++	+++	+++	+++	+++	+++
	sodium hypochlorite	++	++	++	++	++	-	++	++	++
	nickel sulphate	+++	+++	+++	+++	+++	+	+++	+++	+++
	stannic chloride	++	++	++	++	++	+	++	++	++

		PVC		ACIFORT		PUROFORT		CHEMICAL RANGE		
AMINES		1.	2.	3.	4.	5.	6.	7.	8.	9.
	silver nitrate	+++	+++	+++	+++	+++	+	+++	+++	+++
	zinc chloride	+++	+++	+++	+++	+++	+	+++	+++	+++
	zinc sulphide	+++	+++	+++	+++	+++	++	+++	+++	+++
	tri-ethanol amine (TEA)	++	++	++	++	++	+	++	++	++
	diethylamine	-	-	-	-	+	+	-	+	+
ESTERS / ETHERS	amylacetate	-	-	-	-	-	+	-	-	-
	ethyl acetate	-	-	-	-	-	-	-	-	-
	ethyl formate	-	-	-	-	-	+	-	-	-
	methyl formate	-	-	-	-	-	+	-	-	-
	dibenzyl ether	-	-	-	-	-	+	-	-	-
	tetrahydrofuran	-	-	-	-	-	+	-	-	+
MINERAL OILS AND FATS	engine oil	-	+	++	++	+++	+++	++	+++	+++
	cutting oil	-	+	++	++	+++	+++	++	+++	+++
	mineral oil	-	+	++	++	+++	+++	++	+++	+++
	boarding oil	-	+	++	++	+++	+++	++	+++	+++
VEGETABLE AND ANIMAL OILS AND FATS	margarine	-	+	++	+	+++	+++	+	+++	+++
	mayonnaise	-	+	++	+	+++	+++	+	+++	+++
	milk	-	+	++	+	+++	+++	+	+++	+++
	butter	-	+	++	+	+++	+++	+	+++	+++
	pine oil	-	+	++	+	+++	+++	+	+++	+++
	soyabean oil	-	+	++	+	+++	+++	+	+++	+++
	coconut oil	-	+	++	+	+++	+++	+	+++	+++
	fish oil	-	+	++	+	+++	+++	+	+++	+++
	beef suet	-	+	++	+	+++	+++	+	+++	+++
HYDROCARBONS	higher alcohols	-	+	++	+	++	+++	+	++	++
	higher fatty acids	-	+	++	+	+++	+++	+	+++	+++
ALCOHOLS	xylene	-	⊕	+	+	++	++	+	++	-
	gasoline	-	⊕	++	++	++	++	++	++	-
	cyclohexane	-	⊕	+	-	++	+++	-	++	++
	kerosene	-	⊕	++	++	++	+++	++	++	++
	naphtha	-	⊕	+	+	++	+++	+	++	++
	petroleum	-	⊕	++	++	++	+++	++	++	++
	refined petrol	-	⊕	++	++	++	+++	++	++	++
	toluene	-	⊖	-	-	-	+	-	+	-
	n-heptane	-	⊕	+	+	+	++	+	+++	+++
CHLORINATED HYDROCARBONS	butyl alcohol (butanol)	-	-	+	-	+	+++	-	+	++
	1-hexanol	+	+	+	+	++	+++	+	++	++
	isopropanol	+	+	++	+	++	+++	+	+++	+++
	ethanol	+	+	+	+	++	+++	+	++	+++
	methanol	+	+	+	+	++	+++	+	++	++
	1-octanol	-	+	+	+	++	+++	+	++	+++
	diethylene glycol (DEG)	++	++	++	++	++	+++	++	++	++
ALDEHYDES	glycerine	++	++	++	++	++	+++	++	++	++
	methylene chloride	-	-	-	-	+	+	-	+	-
	trichloroethylene	-	-	-	-	++	+	-	++	+
KETONES	tetrachloroethylene	-	-	-	-	++	+	-	++	+
	acetaldehyde	-	-	-	-	-	-	-	-	-
	benzaldehyde	-	-	-	-	-	-	-	-	-
	formaldehyde	-	-	-	-	++	++	-	++	+++
MISCELLANEOUS	acetone	-	-	-	-	-	+	-	-	-
	cyclohexanone	-	-	-	-	-	-	-	-	-
	methyl ethyl ketone (MEK)	-	-	-	-	-	+	-	-	-
	cement / concrete	+	+	++	++	++	-	++	++	++
	detergents	++	++	++	++	+++	++	++	+++	+++
	sugar solution	+++	+++	+++	+++	+++	+++	+++	+++	+++
	paint remover	-	-	-	-	+	-	-	+	+
	hydrogen peroxide (30% vol)	+	++	++	++	++	+	++	+++	+++

The information in this chart has been compiled from results of in house tests and information supplied by other reputable sources and is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. In case of doubt it is advised to test the equipment with the chemicals and under the specific conditions of a specific application before permanent installation. Materials for these tests can be supplied on request. Ratings of chemical behaviour listed in this table apply to a restricted exposure periods at room temperature. Dunlop® Protective Footwear has no knowledge of possible effects beyond this period. Dunlop® Protective Footwear does not warrant (neither express nor implied) that the information in this chart is accurate or complete or that any material is suitable for any purpose. Variations in chemical behaviour during handling due to factors such as temperature, pressure, and concentration can cause equipment to fail, even though it passed an initial test. Use suitable guards and/or personal protection when handling chemicals.