

Glove Characteristics

MATERIAL	PE	VINYL	NITRILE	LATEX
Composition / source	Polyethylene	Polyvinylchloride	Acrylonitrile and butadiene	Cis 1,4 Polyisoprene
Strength / durability	⬇️⬇️ Very poor, breaks easily in use	⬇️ Poor, breaks and punctures easily in use	⬆️ Good, possesses some puncture resistance	⬆️⬆️ Good, strong and durable
Puncture resistance	⬇️⬇️ Punctures easily when stressed	⬇️ Low tensile strength, puncture easily during use	⬆️ Has puncture resistant properties	⬆️ Has puncture resistant properties
Tear resistance	⬇️⬇️ Very poor	⬇️ Poor	⬇️ Poor	⬆️ Good
Chemical barrier properties	⬇️⬇️ Extremely poor protection, soluble in some solvents including alcohol	⬇️ Limited protection, easily permeated by organic solvents, oils and alcohol	⬆️⬆️ Resists most solvents better than latex, but sensitive to alcohols and ketones	⬆️ Good protection from most caustics and detergents, soluble to solvents including alcohol
Strength deterioration in O ₂ , O ₃ and UV light	⬇️ Yes	⬆️ No	⬇️ Yes	⬇️ Yes
Elasticity	⬇️⬇️ Dexterity very compromised	⬇️ Dexterity compromised	⬆️ Less than latex, over time tends to cramp wearer's hand if tight	⬆️⬆️ Very good
Softness	⬇️ Fair	⬇️ Fair	⬆️ Good	⬆️⬆️ Very good
Fit and comfort	⬇️⬇️ Very limited	⬇️ Loose cuff, fit limited	⬆️ Tighter fit	⬆️ Very comfortable
Allergenicity	⬇️ Contains no latex proteins, but contact dermatitis reported from additives	⬇️ Contains no latex proteins, but dermatitis and other complaints reported from additives	⬇️ Contains no latex proteins, but dermatitis reported from accelerators and other additives	⬇️ Contains latex proteins, low powder is always recommended
Use	Short task, single use	Single use	Single use	Single use
Wear life	< 5 mins.	15-30 mins.	< 1 hour	1-2 hours
Cost per use	⬆️⬆️ Very low	⬆️ Low	⬇️ Moderate	⬆️ Low
Advantages	Low cost, lightweight and mild chemical resistance	Low cost, no protein allergens, resists acids, alkalis, fats and resists ageing	Moderate cost, good physical properties and dexterity	Good elasticity and dexterity, low cost, good physical properties and memory
Disadvantages	Only for short-duration tasks, limited fit, feel and strength, dangerous around high heat	Moderate flexibility, limited fit and feel, punctures and fatigues easily, contains irritating chemicals, plasticisers can leach	Limited fit, feel and flexibility, poor memory, possible finger fatigue, contains sensitising chemicals	Not good for use with oils, greases, organics, large quality variations, contains allergens and sensitisers