Polymer Systems Technology Limited

Cyanoacrylate Adhesive Selector Chart

Grade Number	Product Group	Viscosity (CPs)	Gap Fill (mm)	Storage (months)	Cured Strength (N/mm^2)	Operating Temperature (°C)	Description	Typical Applications
PST 09	Superfast	Gel	1.00	6	13 - 20	-60 - +80	General purpose gel.	Wood, cork, paper and porous materials. Bonding on vertical surfaces.
PST 16	Superfast	1500	0.20	12	15 - 25	-60 - +80	General purpose, high viscosity.	Rubbers, plastics, ceramics, magnets and UPVC bonding.
PST 20	Superfast	5	0.03	12	18 - 28	-60 - +80	General purpose, very low viscosity.	Electronic components. Locking screws and fasteners, wicking grade.
PST 22	Superfast	2500	0.25	12	12 - 22	-60 - +80	High viscosity, slower bonding grade.	Porous substrates, sintered components, vertical surfaces. Loudspeakers.
PST 24	Superfast	100	0.1	12	15 - 25	-60 - +80	Medium viscosity, surface insensitive.	Rubbers and plastics, including EPDM seals and UPVC profiles and trim.
PST 50	Superfast	250	0.15	12	15 - 23	-60 - +80	Medium viscosity, improved gap fill.	Foam and filled rubbers. Domestic appliances.
PST 95	Superfast	40	0.05	12	15 - 25	-60 - +80	General purpose, low viscosity.	Electronic components. Rubber O Rings. Automotive.
PST 01	Ultrafast	100	0.1	6	12 - 22	-60 - +130	Very fast bonding, surface insensitive.	Ceramics, aluminium, leather, metal and softwoods. Footware.
PST 05	Ultrafast	250	0.15	6	12 - 22	-60 - +130	Very fast bonding, improved gap fill.	Wood, leather, sintered metals, magnets. Domestic appliances.
PST 06	Ultrafast	20	0.05	6	12 - 24	-60 - +130	Low viscosity for difficult substrates.	Rubber seals and O rings, close fitting surfaces. Automotive assembly
PST 15	Ultrafast	1500	0.2	6	12 - 22	-60 - +130	High viscosity for difficult substrates.	Mild steel, soft and hardwoods, leather, fabrics and decorative trims.
PST 60	Low Odour	60	0.05	6	10 - 20	-60 - +80	Low odour, low staining.	Jewellery. Fine instrument assembly. Plastic lenses.
PST 80	Toughened	250	0.15	6	15 - 25	-60 - +80	Toughened, better peel strength.	Rubber and rubber/metal joints for improved bond flexibility.

PST 750 General Purpose Activator

This is applied in applications where bond speed is critical. Instant bonding is guaranteed regardless of temperature, humidity and other variables.

PST 757 Polyolefin Primer

Designed especially for the priming of materials that are difficult to bond, this primer promotes adhesion on polyolefinic surfaces.

PST 780 Non-Staining Activator

Specifically designed to reduce staining on UPVC profiles. Very useful for bonding porous substrates.

PST 25 Cyanoacrylate Debonder

Environmentally friendly and relatively safe in use, this debonder softens and removes cured Cyanoacrylate from bonded joints.

Available Pack Sizes

Cyanoacrylate Adhesives available in 20g, 50g, 500g and bulk packaging.

Cyanoacrylate Activators available in 20ml brush cap bottles, 20ml pump spray bottle, 200ml aerosol and bulk.

Cyanoacrylate Primers available in 20ml brush cap bottles and 500ml bottles.

Cyanoacrylate Debonders available in 30ml bottles and 500ml bottles.

Dispensing bottles and nozzles available as required.

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Product Group by Curing Speed

Pouring Consistency Viscosity	Fast		Super Fast		Ultra Fast	
	Catalogue No.	Viscosity (cps)	Catalogue No.	Viscosity (cps)	Catalogue No.	Viscosity (cps)
Thin			PST 20	5		
					PST 06	20
	GP 495	25 - 40				
			PST 95	40		
Medium			PST 24	100	PST 01	100
	GP 424	100 - 120				
			PST 50	250	PST 05	250
Thick	GP 416	1400 - 1600				
			PST 16	1500	PST 15	1500
			PST 22	2500		
			PST 09	GEL		

Limitations of Use.

Used correctly, Cyanoacrylate adhesives offer many advantages to the user, but occasionally care needs to be exercised when selecting the correct product for a specific application.

Most Cyanoacrylate adhesives cure very rapidly, so considerable care must be exercised when aligning parts to be bonded. Care should be taken to select a slow curing grade if this is important to the user.

Cyanoacrylates cure to form a solid acrylic type polymeric layer between the substrates, therefore the upper temperature operating limit will be determined by the softening point of cured adhesive. Care should therefore be taken when selecting a grade for elevated temperature service.

Prolonged immersion of Cyanoacrylate bonded joints in water will cause a weakening of the overall bond strength. Cyanoacrylates should not therefore be used for water containment vessels.

The thin nature of the bond-line achieved with Cyanoacrylates will not allow for much stress to be relieved through the cured adhesive. This is particularly important when joints may be prone to differential rates of thermal expansion. Therefore care should be taken to select a high toughness grade if joints are likely to be subjected to considerable stress.

Safety Data & Handling Precautions.

Cyanoacrylate adhesives form strong bonds with skin and therefore contact with the skin or other parts of the body should be avoided. In normal use, gloves such as the disposable Polyethylene type are economical and comfortable in usage. If there is danger of splashing then goggles should be worn at all times. In the event of skin bonding, it is best handled by soaking the bonded area in hot soapy water. Although this may take some time, this process aids separation of the skin in a passive way. Never pull bonded skin apart as it will result in the tearing of tissues. Instead, gently use a peeling action with hot soapy water. KEEP AWAY FROM CHILDREN. See Material Safety Data Sheet before use.

Cyanoacrylate adhesives have vapours that irritate the eyes and mucous membranes and therefore should not be used in poorly ventilated areas. Cyanoacrylate vapours are heavier than air and fumes should be vented off using adequate fume extraction.

Spilled liquid Cyanoacrylate adhesives should be handled with care and should be cleaned immediately rather than left. Small drops of adhesive can be cleared up using rags but care should be taken not to clean up larger quantities using this method as polymerisation will occur in the fabric and heat and smoke may be released. For larger spills, flood the area with excess water and remove polymerised adhesive for landfill.

Issue 1.

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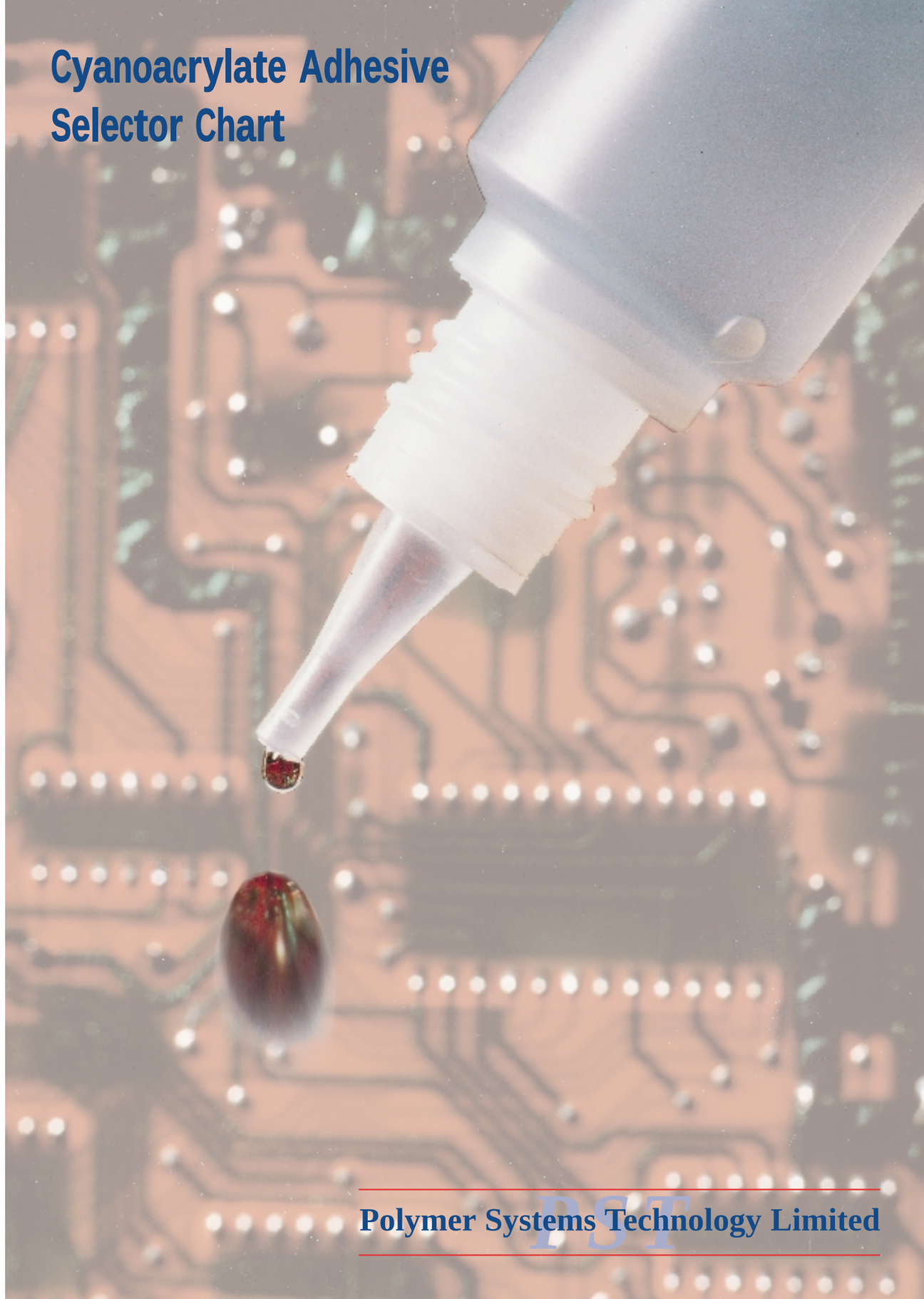

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