


3M™ Industrial Adhesives and Tapes  
3M™ Scotch-Weld™ Engineering Adhesives



Now  
There's a  
**Choice**



A name you  
can trust at a  
price you  
can afford

The bottom of the page features two overlapping blue geometric shapes. On the left is a light blue rectangle, and on the right is a darker blue rectangle that overlaps the light blue one.

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# Sticking with innovation

Throughout its long history, 3M people and products have been working hard to improve the lives of individuals, communities and society.

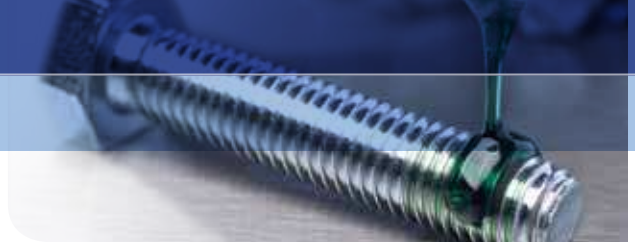
Our commitment to capturing and fulfilling their needs is what drives our creativity, enabling us to translate those needs into more than 50,000 innovative solutions touching virtually every aspect of modern life including the OEM, automotive, electronics and general engineering sectors.

## 3M bring their innovation to Industrial Adhesives

Building on our long track record in Engineering adhesives and sealants, we have introduced a new range of 3M™ Scotch-Weld™ Industrial Adhesives and Sealants to help industrial customers in the design and production of improved engineering solutions.

Delivering fast curing speeds, reliable bonding and flexible application, the Scotch-Weld range results from the advanced adhesive technologies that 3M is continuously developing industry-wide. And rest assured it comes with the same world-class technical support associated with all 3M innovations.





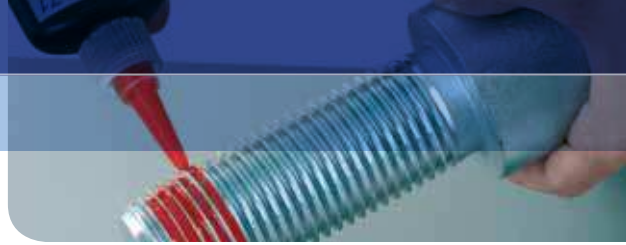
## A name you can trust at a price you can afford

Unlike many big brand names, Scotch-Weld's superior bonding characteristics and application versatility don't come at an unfairly inflated price. At 3M we are aware of the cost-conscious competitive environment in which our industrial customers operate and our determination as ever is to deliver a better-performing product range within a cost-efficient pricing structure.

## Making your job easier

This Product and Solutions Guide has been deliberately designed to help you to find the right Scotch-Weld product fast, so that you can carry out your task speedily, efficiently and consistently. Simply select the relevant category and you will find all the product information you need to confirm your choice. It's the easiest way to take advantage of Scotch-Weld's many application opportunities and get the results you want every time.



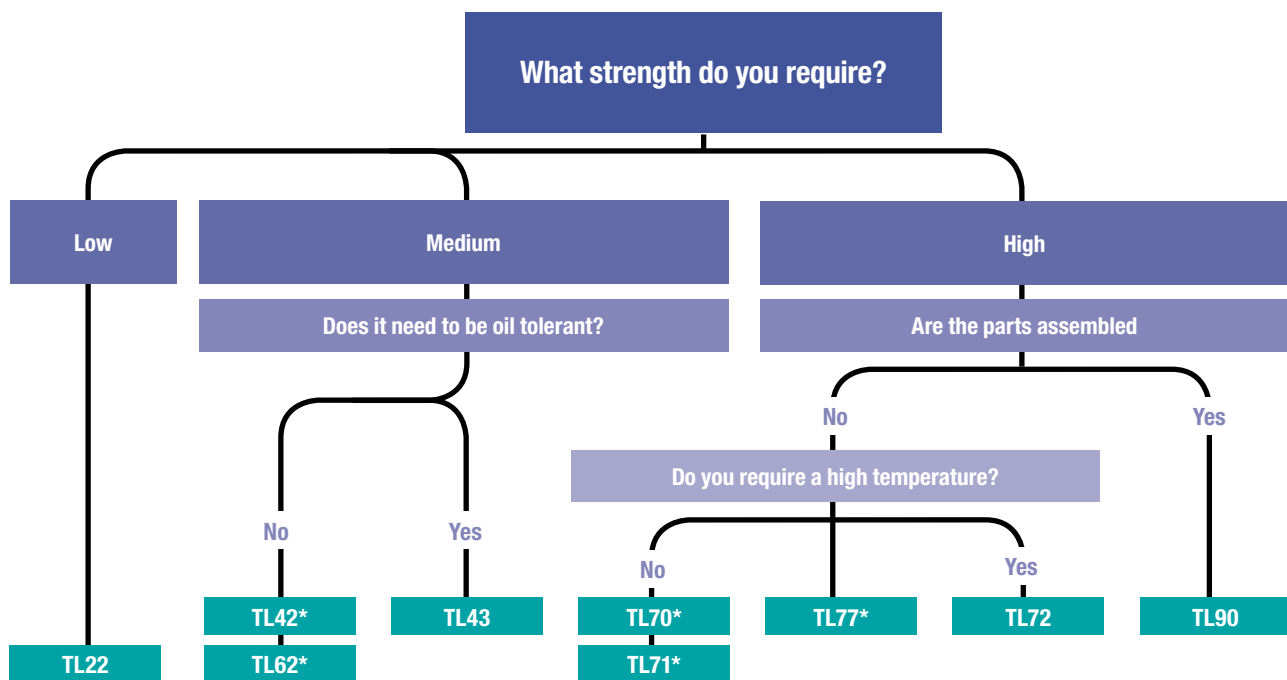


# 3M™ Scotch-Weld™ Threadlockers

With a wide range of strengths and viscosities allowing use across a broad spectrum of general engineering and automotive applications, Scotch-Weld Threadlockers readily meet the needs of OEM assembly, maintenance, upgrade and overhaul projects.

- Fills gaps between mating metal threads preventing vibration loosening
- Seals against leakage and corrosion
- Excellent fluid resistance
- Replaces traditional mechanical methods such as locks washers, split pins, Nylok nuts and wiring thus reducing weight, inventory and cost
- Single component (no mixing)
- Easy to apply

## What threadlocking product do I need?



\* choose product based on viscosity required.

	Colour	Viscosity mPa s	Breakaway Torque N m ISO 10964	Prevail Torque N m ISO 10964	Gap Fill mm	Fixture Time min.	Service Temperature Range °C
TL22	Purple	at 2.5 rpm 4,000–6,000 <sup>1</sup> , at 20 rpm 1,000–2,000 <sup>1</sup>	8	3	0.25	≤ 15	-50 to +150
TL42	Blue	at 2.5 rpm 4,000–6,000 <sup>1</sup> , at 20 rpm 1,000–2,000 <sup>1</sup>	15	7	0.25	≤ 15	-50 to +150
TL62	Red	at 2.5 rpm 5,500–8,500 <sup>1</sup> , at 20 rpm 1,000–3,000 <sup>1</sup>	25	25	0.25	≤ 15	-50 to +150
TL43	Blue	at 2.5 rpm 10,000–18,000 <sup>1</sup> , at 20 rpm 2,500– 4,000	19	10	0.30	≤ 15	-50 to +150
TL70	Green	400–600	29	33	0.20	≤ 15	-50 to +150
TL71	Red	400–600	29	31	0.20	≤ 15	-50 to +150
TL77	Red	7000	30	30	0.20	≤ 15	-50 to +150
TL72	Red	at 2.5 rpm 15,000–30,000 <sup>2</sup> , at 20 rpm 5,000–10,000 <sup>2</sup>	26	26	0.30	≤ 15	-50 to +230
TL90	Green	7–12	16	34	0.15	≤ 15	-50 to +150

Shelf life: see product information <sup>1</sup> Brookfield RVT, spindle 2, <sup>2</sup> Brookfield RTF, spindle 4

# Threadlocking Product Details

## TL22

- Screwlock
- Low-strength thixotropic compound
- Low removal torque allows easy disassembly
- Used with light fasteners
- Recommended for use on softer, non-ferrous metals e.g. brass

## TL71

- Studlock
- High strength
- Used for permanent threadlocking applications
- Suitable for larger threaded fasteners

## TL42

- Nutlock
- Medium-strength thixotropic compound
- General purpose threadlocker
- Can fill gaps up to 0.25mm
- For use where disassembly with hand tools for servicing is required

## TL77

- Boltlock
- High strength
- Medium-high viscosity gives improved gap-filling and sealing capability
- Used on large nuts and bolts up to M50

## TL43

- Nutlock
- Oil-tolerant
- Medium-strength thixotropic compound
- General purpose threadlocker
- Typically used on mounting bolts and housing screws

## TL72

- Studlock
- High service temperature up to 230°C
- High-viscosity thixotropic product prevents run-off, dripping and migration post-assembly
- Gap filling for larger diameter threaded parts

## TL62

- Studlock
- High strength
- Prevents corrosion of assembled parts
- Can fill gaps up to 0.25mm
- Suitable for applications requiring high strength but not maximum strength

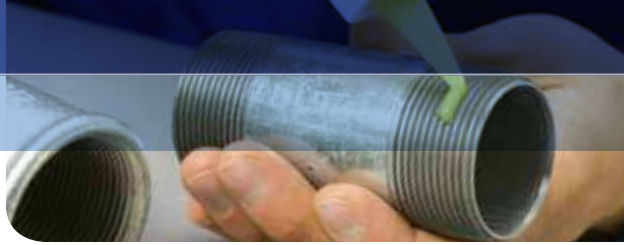
## TL90

- High strength
- Penetrating adhesive
- Very low viscosity
- Applied to pre-assembled parts
- Can be used as a porosity sealant for cast components

## TL70

- Studlock
- High strength
- Used for permanent threadlocking applications
- Suitable for larger threaded fasteners e.g. studs





# 3M™ Scotch-Weld™ Pipe Sealants

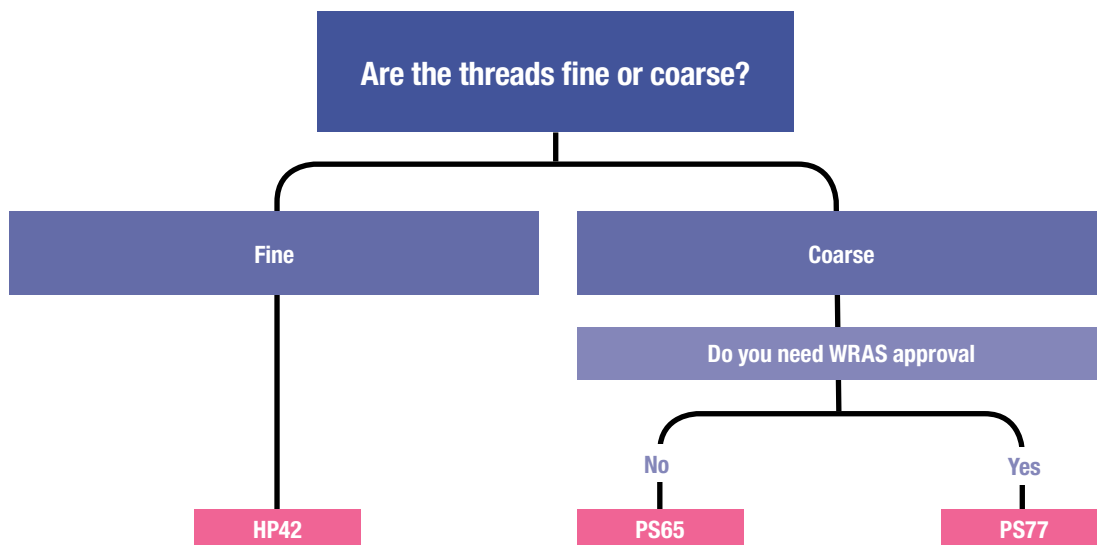
Allowing easy disassembly even over long time periods, Scotch-Weld Pipe Sealants are formulated to seal pipe threads preventing the escape of gaseous and liquid materials such as water, oil and gas.

- Replaces PTFE tape
- Single component (no mixing)
- Provides low cost joints that do not shred

- Solvent free
- Provides an instant low pressure seal
- Easy disassembly even after long periods
- WRAS approval\*

\*Available on selected products only

## What pipe sealant product do I need?



	Colour	Viscosity mPa s	Breakaway Torque N m ISO 10964	Prevail Torque N m ISO 10964	Gap Fill mm	Fixture Time min.	Service Temperature Range °C
<b>Hydraulic Sealant</b>							
<b>HP42</b>	Brown	at 2.5 rpm <sup>1</sup> 400-600 <sup>1</sup>	13	10	0.20	15	-50 to +150
<b>Pipe Sealants</b>							
<b>PS65</b>	White	at 2.5 rpm 150,000-450,000 <sup>2</sup> , at 20 rpm 30,000-130,000	3.5	1.5	0.50	≤ 120	-50 to +150
<b>PS77</b>	Fluorescent yellow	at 2.5 rpm 35,000-60,000 <sup>3</sup> , at 20 rpm 10,000-20,000 <sup>3</sup>	16	4.5	0.25	≤ 15	-50 to +150

Shelf life: see product information <sup>1</sup> Brookfield LVF, spindle 2, <sup>2</sup> Brookfield RVT, T spindle D, <sup>3</sup> Brookfield RVT, T spindle 5



## Pipe Sealant Product Details



### HP42

- Hydraulic sealant
- Used on pneumatic and hydraulic installations
- Can be used for fine fittings with diameters up to 15mm
- Prevents vibration-loosening and leakage through pipe threads
- Provides medium-strength break for easy to disassembly and service



### PS65

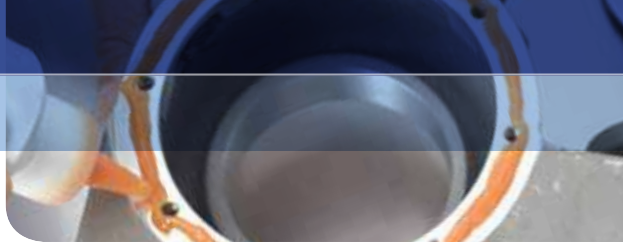
- Pipe sealant
- High-viscosity thixotropic pipe-sealing paste
- Can be used for medium to coarse threads with diameters from 15 to 80mm
- Used to lock and seal medium to coarse threads
- Prevents vibration-loosening and leakage through pipe threads



### PS77

- Pipe sealant
- High-viscosity thixotropic pipe sealing paste
- Locks and seals medium to coarse straight and tapered threads
- Used to lock and seal medium to coarse threads
- Prevents vibration-loosening and leakage through pipe threads



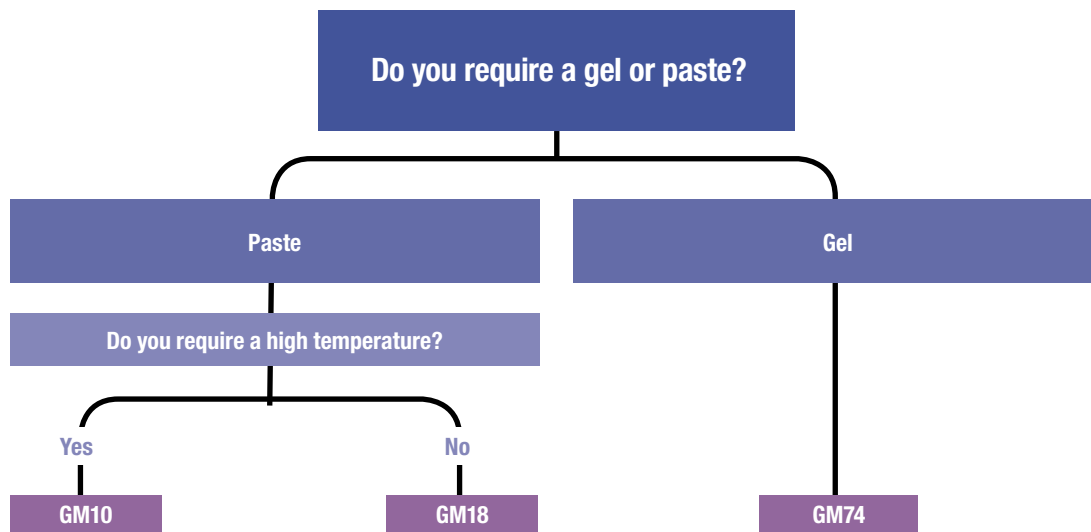


# 3M™ Scotch-Weld™ Gasket Makers

Ideal for creating a reliable joint between two mounted flanges or surfaces, Scotch-Weld Gasket Makers provide a durable, flexible and temperature resistant seal.

- Eliminates the need for pre-cut gaskets, reducing weight, inventory and cost
- Provides excellent instant seal
- For use on water, oil and fuel pumps, electric motor end covers, compressors, thermostat housing and most machined metal faces
- Will not contaminate hydraulic and pneumatic systems
- Does not shrink, crack, sag or run
- Fills surface imperfections, reducing machining costs
- Single component (no mixing)

## What gasket maker product do I need?



	Colour	Viscosity mPa s	Breakaway Torque N m ISO 10964	Prevail Torque N m ISO 10964	Gap Fill mm	Fixture Time min.	Service Temperature Range °C
GM10	Red-orange	at 2.5 rpm 250,000–600,000 <sup>1</sup> , at 20 rpm 40,000–80,000 <sup>1</sup>	-	-	0.50	20	-50 to +200
GM18	Red	at 2.5 rpm 300,000–700,000 <sup>1</sup> , at 20 rpm 75,000–150,000 <sup>1</sup>	-	-	0.50	35	-50 to +150
GM74	Orange	at 2.5 rpm 60,000–100,000 , at 20 rpm 12,000–25,000	-	-	0.35	20	-50 to +150

Shelf life: see product information <sup>1</sup> Brookfield RVT, T spindle D, <sup>2</sup> Brookfield RVT, T spindle 6

## Gasket Maker Product Details

GM10	GM18	GM74
 <ul style="list-style-type: none"> <li>• Suitable for high temperature applications</li> <li>• Designed for use on rigid flanges</li> <li>• Provides rapid low-pressure seal</li> <li>• Seals similar metals</li> </ul>	 <ul style="list-style-type: none"> <li>• Ideal for use on rigid flanges</li> <li>• Highly flexible</li> <li>• High-viscosity thixotropic paste</li> <li>• Seals similar and dissimilar metals</li> </ul>	 <ul style="list-style-type: none"> <li>• Multi-purpose gasket</li> <li>• General-purpose flange sealant</li> <li>• Can be dismantled after prolonged use</li> <li>• Seals similar and dissimilar metals</li> </ul>



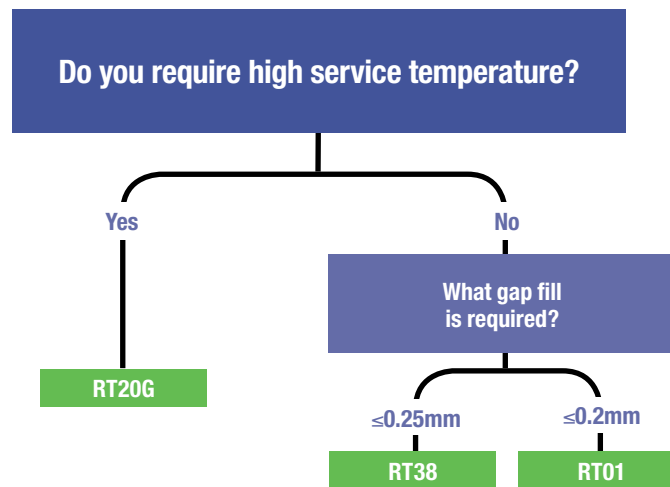
# 3M™ Scotch-Weld™ Retaining Compounds

Available in high temperature grades and easily dispensed manually or automatically, Scotch-Weld Retaining Compounds are ideal for bonding parts such as bearings, shafts, hubs and bolts.

- Increases the load bearing characteristics of cylindrical joints
- Reduces assembly stresses

- Range of strengths and viscosities to meet demanding engineering specifications
- Single component (no mixing)
- Prevents corrosion and eliminates fretting
- Provides 100% contact, filling all voids

## What retainer product do I need?



	Colour	Viscosity mPa s	Breakaway Torque /Prevail Torque N m ISO 10964	Shear Strength MPa ISO 10123	Gap Fill mm	Fixture Time min.	Service Temperature Range °C
<b>RT20G</b>	Yellow/green	at 2.5 rpm 10,000–30,000*, at 20 rpm 5,000–10,000*	34/32	11–28	0.40	15	-50 to +230
<b>RT38</b>	Green	1,800-3,300	30/32	11-37	0.25	≤ 15	-50 to +150
<b>RT01</b>	Green	100–150	32/34	12–26	0.20	15	-50 to +150

Shelf life: see product information \* Brookfield RVT, spindle 4

## Retainer Product Details

### RT20G



- High-viscosity thixotropic retaining compound
- Designed to give high service temperature
- Ideal for retaining cylindrical parts to achieve high bond strengths
- Ideal for gap-filling applications

### RT38



- Highest bond strength
- Designed for bonding cylindrical parts
- Typical applications include locking sleeves onto shafts

### RT01



- High strength
- Eliminates fretting and corrosion
- Oil-tolerant
- Ideal for retaining close-fitting cylindrical parts

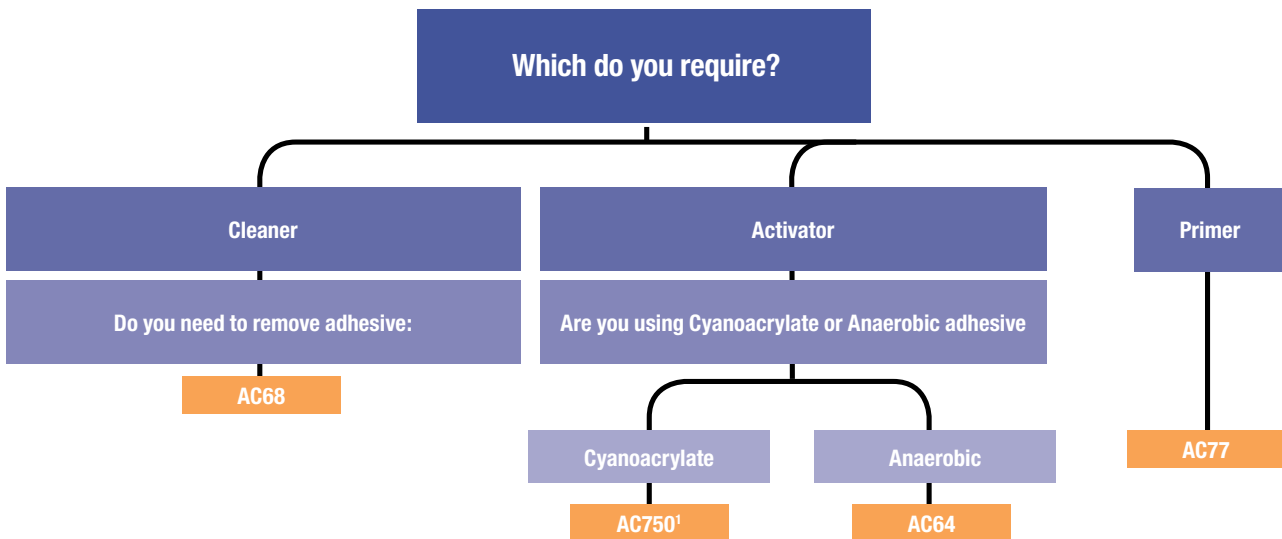


# 3M™ Scotch-Weld™ Surface Preparation

Used to prepare surfaces, Scotch-Welds range of cleaners, activators and primers work to clean surfaces, enhance cure speeds and allow bonding on low surface energy materials such as polyethylene, polypropylene and even Teflon™.

- Accelerates cure speeds
- Allows bonding on inactive substrates
- Ideal for high speed production environments
- Simple to use
- Easy and fast removal of surplus instant bonding adhesives
- Ensures high strength bonding on inactive substrates such as anodized metal, stainless steel, electroplated parts etc

## What surface preparation product do I need?



<sup>1</sup> used for sensitive plastics.

	Basis	Colour	Viscosity mPa s	Flash-off Time	On Part Life	Flashpoint °C
AC68	Propylene carbonate	Clear	2.00	-	-	68
AC750	Organic solvent	Clear	2.00	-	-	-40 (highly flammable)
AC64	Hydrocarbon solvent base, copper salt	Pale green	0.50	~ 15 sec.	≤ 30 days	-5 (highly flammable)
AC77	Heptane	Clear	1.00	30 sec.	8 hrs.	1 (highly flammable)

# Surface Preparation Product Details

## AC68

- De-bonder
- Designed to remove cured or uncured cyanoacrylate adhesives
- Can be used to remove small marks or fingerprints on work surfaces

## AC64

- Rapid-cure activator for use with anaerobic adhesives
- Recommended for use with passive metals e.g. stainless steel
- Used for low-temperature bonding applications

## AC750

- Solvent-based activator for cyanoacrylate adhesives
- Designed to give instant on-demand curing of adhesives

## AC77

- Cyanoacrylate primer
- Designed for bonding to difficult-to-bond plastics
- Increases surface energy of difficult-to-bond plastics





# 3M™ Scotch-Weld™ Instant Adhesives

3M™ Scotch-Weld Adhesives enable rapid bonding of many substrates and ensure high strength joints and clear bond lines, all in a matter of seconds

- Instant bond
- High-performance
- Ideal for low surface energy materials
- Clear bond lines
- Bonds a wide variety of materials
- A range of viscosities available to suit different applications

Please note that on product coding letters relate to product type and numbers relate to viscosity (CPS)

## Instant Adhesive Product Details

### Rubber Toughened

- Rubber-toughened adhesive
- Provides a more flexible bond than standard cyanoacrylates
- Displays excellent peel and impact strength
- Well-suited to applications which experience vibration, thermal shock, temperature variation, cycling and high humidity

RT3500B

### Plastics and Rubber

- High-strength, multi-purpose bonding of most plastics and rubbers
- Can bond difficult-to-bond-to plastics such as polypropylene and polyethylene (with AC77 primer)
- USP Class VI approval for use in medical devices

PR40

PR100

PR600

### Surface Insensitive

- Very fast-curing cyanoacrylate adhesive
- Multi-purpose adhesive for bonding plastics, rubbers, wood, leather and metals
- Full range of viscosities available including a thixotropic gel for gap-filling applications

SI40

SI100

SI1500

SI GEL

### Metal Bonding

- Best choice for metal bonding
- High-strength, multi-purpose bonding adhesive
- Bonds a wide range of materials including most plastics, rubbers and metals

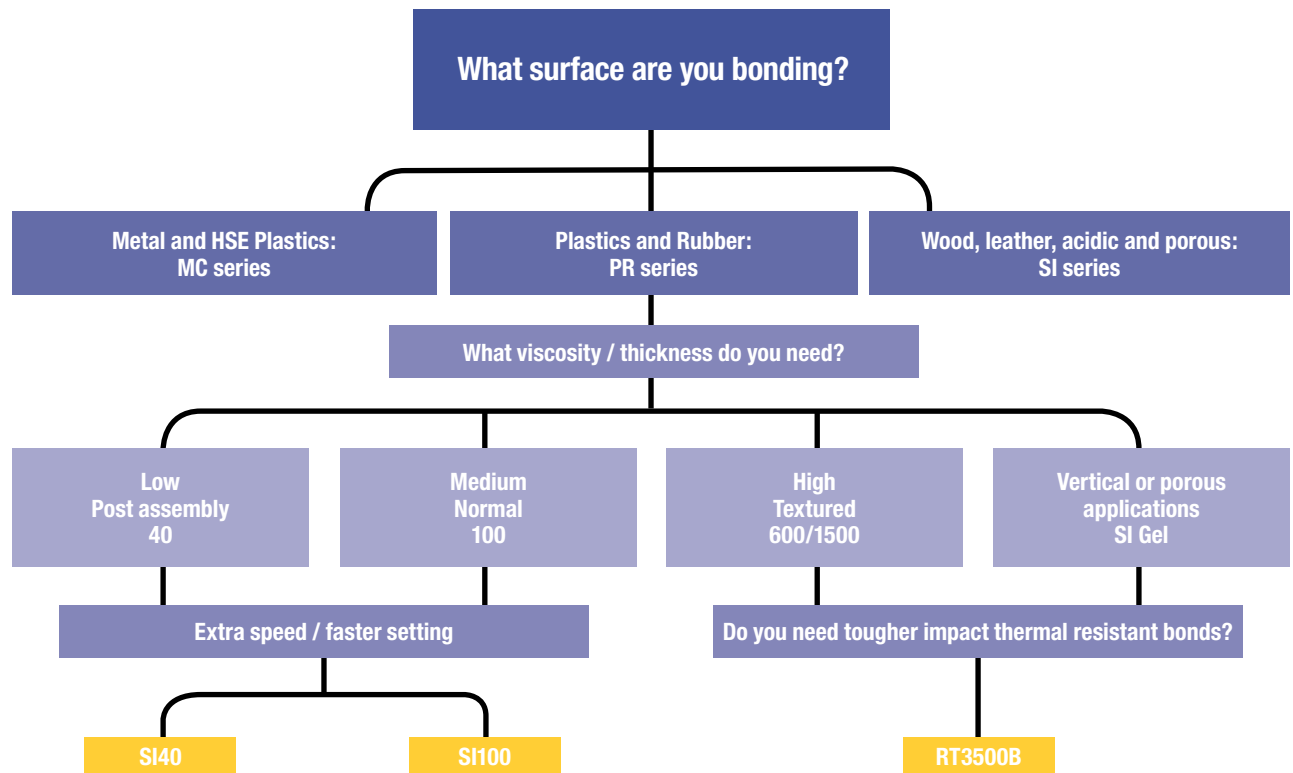
MC40

MC100

MC1500



# What instant adhesive product do I need?



# Go-to Products

Threadlocking	TL43	<ul style="list-style-type: none"> <li>• Medium strength threadlocker</li> <li>• Vibration resistant</li> <li>• Parts can be dismantled with normal hand tools</li> </ul>
	TL70	<ul style="list-style-type: none"> <li>• High strength threadlocker</li> <li>• Vibration resistant</li> <li>• For permanent use on nuts, bolts and heavy duty fasteners</li> </ul>
	TL90	<ul style="list-style-type: none"> <li>• High strength</li> <li>• Penetrating adhesive</li> <li>• Very low viscosity</li> </ul>
Instant Adhesive	SI40	<ul style="list-style-type: none"> <li>• Very fast-curing cyanoacrylate adhesive</li> <li>• Multi-purpose adhesive for bonding plastics, rubbers, wood, leather and metals</li> <li>• Full range of viscosities available including a thixotropic gel for gap-filling applications</li> </ul>
	PR100	<ul style="list-style-type: none"> <li>• High-strength, multi-purpose bonding of most plastics and rubbers</li> <li>• Can bond difficult-to-bond-to plastics such as polypropylene, polyethylene, PTFE and thermoplastic rubbers (with AC77 primer)</li> </ul>
	MC100	<ul style="list-style-type: none"> <li>• Best choice for metal bonding</li> <li>• High-strength, multi-purpose bonding adhesive</li> <li>• Bonds a wide range of materials including most plastics, rubbers and metals</li> </ul>
	SI GEL	<ul style="list-style-type: none"> <li>• Very fast-curing cyanoacrylate adhesive</li> <li>• Multi-purpose adhesive for bonding plastics, rubbers, wood, leather and metals</li> <li>• Thixotropic gel for gap-filling applications</li> </ul>
Pipe Sealant	PS77	<ul style="list-style-type: none"> <li>• Pipe sealant</li> <li>• High-viscosity thixotropic pipe sealing paste</li> <li>• Locks and seals medium to coarse straight and tapered threads</li> </ul>
Gasket Maker	GM74	<ul style="list-style-type: none"> <li>• Multi-purpose gasket</li> <li>• General-purpose flange sealant</li> <li>• Can be dismantled after prolonged use</li> </ul>
Retaining	RT01	<ul style="list-style-type: none"> <li>• High strength</li> <li>• Eliminates fretting and corrosion</li> <li>• Oil-tolerant</li> </ul>
	RT20G	<ul style="list-style-type: none"> <li>• High-temperature retaining compound</li> <li>• High strength</li> <li>• Eliminates fretting and corrosion</li> </ul>
Surface Preparation	AC64	<ul style="list-style-type: none"> <li>• Rapid-cure activator for use with anaerobic adhesives</li> <li>• Recommended for use with passive metals e.g. stainless steel</li> <li>• Used for low-temperature bonding applications</li> </ul>



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