Beginning here: 40 pages of home-improvement ideas





All Those New CAULKS

The wild new array of miracle sealants—a bonus of space exploration—complicates a choice that used to be simple. Which of the new rubber/plastic compounds is best for each job—and are they worth the high tariff?

By RICHARD DAY

There are so many new paths to a tighter house that you may feel trapped in a maze. It used to be easy to buy compound for those autumn caulking chores. You only had to decide on the form you wanted —bulk for putty-knife application, a cartridge for gunning, rope or a block of gum for finger work. These forms of oil-base caulk still exist and have their uses, but if you breeze into a hardware or building-supply store these days and merely order "caulk," you'll get an expectant stare:

"Yes, sir—*rubber* caulk? Butyl, polysulfide, or silicone? Or latex, perhaps—acrylic or PVA?"

Continued

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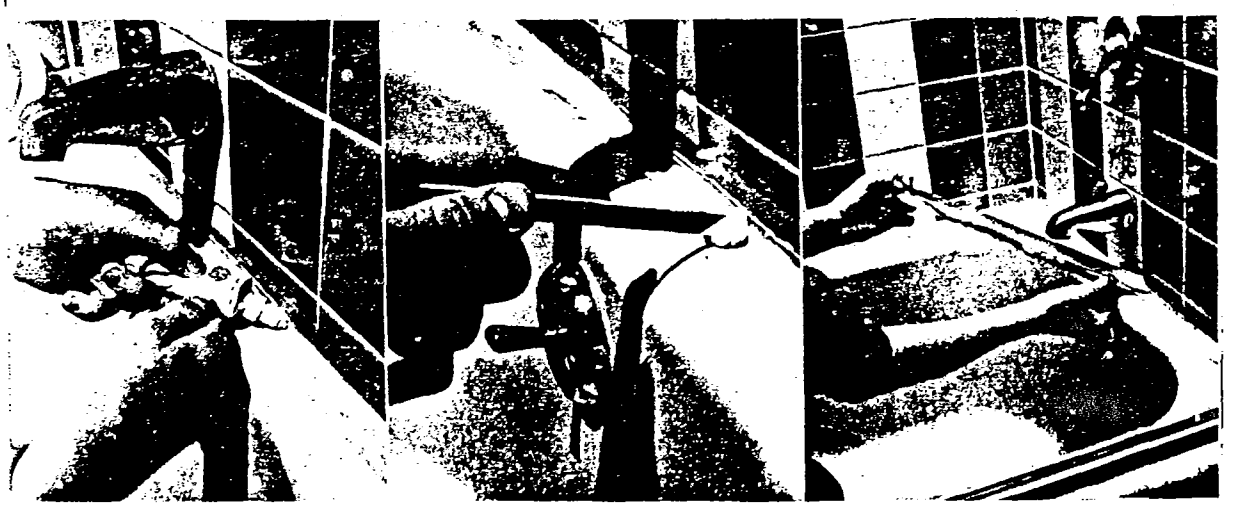
Choose the best for each job

Wall joints and cracks
*Porch-to-house joints
*Joints between dissimilar materials (above)
*Wall-to-slab joints
Loose siding joints
*Stucco cracks
*Joints in concrete steps

Flashing
Sealing skylights
Sealing ducts and vents (above)
*Around air conditioners
*Leaky gutters and downspouts
Around sinks and tubs (below)
Ceramic-tile joints
Plumbing joints and fixtures
*Pipes through walls, floors
*Cabinet-to-wall joints

Window frames (above)
Window glazing
Door frames
Column bases
Around electric boxes
*Attic floor/chimney gaps
*Boat seams
*Camping-vehicle seams

*May be moving joints



Silicone rubber is the best bathtub seal—but there's a trick to applying it

Three-ounce tube is enough for tub, though GE now offers product in 12-oz. cartridges. Apply by pushing nozzle along joint (left)—never by pulling on bead

Neat job is easy if you apply masking tape along both sides of joint. Cove the bead at once with end of ice-cream stick (center), then strip off tape

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Those New Caulks and Sealants—How They

Type of Caulk	Brands	Where to Use	Colors
Acrylic latex	DAP Latex Caulk, Sears Acrylic Latex Caulking Compound, Wards Latex Caulk, Glidden Spred Latex Caulk, Macco Latex Caulk, Pecora AC-20 Acrylic Latex Calk, Miracle Latex-Caulk, U-G-L Latex Caulk	Indoors or out. For all ordinary caulking jobs—especially those to be painted. Can be used as crack-filler or spackle	Clean white and colors
PVA latex	DAP Kwik-Seal, Elmer's Mystik Tub Caulk, Mortell Mortite White Latex Tub and Tile Caulk, Miracle PVA Caulk, Macco Tub-Caulk, Sears Tub and Tile Caulk	Indoor tub and tile sealer, where low cost is important. Good filler for nail holes, wall cracks that open and close with the season. Not for metal	White
Butyl rubber	Pecora Butyl Rubber Sealant BC-158, DAP Butyl-Flex, 3M Weatherban 202 and 204, Macco Butyl Rubber Sealant, Harriscaulk Butyl-Rubber Caulking Compound, Sherwin-Williams Dexall Flex-Caulk, U-G-L Butyl Caulk, Mortell Butyl Seal, Wards Butyl Rubber Caulking Compound, Glidden Spred Butyl Caulk	Indoors or out. Good for sealing between dissimilar materials. With glass, a giant step up from oil-base caulks and putty	White, bright white, black, gray, aluminum, stone, brown, beige, bronze, and colors
Polysulfide rubber	Sears Sealer Caulk, DAP One-Part Flexiseal, 3M Weatherban One-Part Sealant 101, Pecora Synthacalk GC-9, Macco Maccoflex Sealant, Flo Paint Boatlife LIFE-CALK	Indoors or out where major joint movement or dissimilar materials are involved, or where long life is wanted. Good for glazing, boats	White, gray, black, and colors
Silicone rubber	General Electric: Bathtub Seal, Clear Seal, Metal Seal & Construction Sealant; Dow Corning: Silastic Sealant, Bathtub Caulk, Clear Sealer, Aluminum Sealer, Black Sealer, Marine Sealer and 780 Building Sealant; Elmer's Flexite Live Rubber Sealant	Almost anywhere that you care enough to use the very best. Tops for bathtub-sealing and for repairs	Translucent, white, black, aluminum, stone, wood, and colors
Neoprene rubber	Gates Engineering GACO N-99 Neoprene Sealing Compound, Tufcrete Elastomeric Sealant (neoprene-hypalon combination)	Outdoors for sealing joints in metal, such as gutters, downspouts—and sealing to soft stone	White, off-white, gray
Acrylic (solvent type)	DAP One-Part Acrylic Polymeric Sealant, Pecora 60+ Unicrylic, Macco Maccolastic	Indoors or out where a durable, permanently elastic joint is needed. Especially suitable for glazing and expansion joints	White, limestone, black, aluminum gray, medium bronze, brown, and colors
Hypalon	Gibson-Homans Eternaflex One Component Hypalon Sealant, Gates Engineering GACO H-88, Miracle Kolorprene Hypalon Caulk	Indoors or out where an especially adhesive, resilient sealant is required	White, black, gray, and colors
Oil-base	Glidden Caulking Compound, Pecora Architectural Calking Compound 200-R2, DAP Rely-On Caulking Compound, DAP Architectural Caulking, Sherwin-Williams Dexall Caulking Compound, Macco Poly-Flex Caulking Compound, Wards Oil Base Caulking Compound, Michlin Quick Seal Marine Grade, Harriscaulk, Harriscaulk Marine Type, and many more	Indoors or out, where cost is the big factor. Consider the seal as temporary	White, gray, and wide range of colors
Rope caulk (polybutene)	J. W. Mortell: Mortite White Caulking Cord, Mortite Weatherstrip and Caulking Cord, Mortite Caulking Gun, DAP Rope Caulk	Indoors or out, for temporary caulk or gasket in joints with little movement. Around storms, screens, air conditioners, etc. Excellent sound-deadener	White, off-white, gray

*T=Tack-free; C=Cured

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Compare with the More Familiar Types

Ease of Application	Surface Preparation	Clean-up Solvent	Setting Time*	Life Expectancy	Price Range	Advantages and Disadvantages
Very easy	Reasonably clean and dry. Primer often not needed	Water	T: 20 mins. C: 1-2 days	5-10 yrs.	$.79-$1.87	Same easy-to-use b :fits as latex paints, and easy cl up with water. Can paint after 30 minutes. Nontoxic, nonflammable. Hardens some with age. Not for joints with considerable movement
Easy	Reasonably clean and dry. No primer	Water	T: 5-30 mins. C: 10-24 hrs.	3-10 yrs. (interior only)	$1.19-$1.33 (6-oz. tube)	Low cost, easy to use, nontoxic; clean up with water. Can be sanded, painted. Not resilient, not weather-resistant. Temporary, even indoors
Easy	Clean and dry. No primer	Mineral spirits, naphtha	T: 1-24 hrs. C: 1-6 wks.	10-20 yrs.	$.79-$1.80	Paintable after 7 days, best all-round adhesion. Tends to collect dirt in dusty locations, may stain masonry. Takes some joint movement, but toughens with age. High shrinkage
Easy, but takes skill to do neat job	Thoroughly clean and dry. All porous surfaces must be primed	MEK, toluene, or in some cases trichloroethylene	T: 4 days C: 2-4 wks.	20 yrs. and more	$2.88-$3.67	Needs careful surface prep, but bonds firmly to most surfaces, weathers well. Long, successful history. Takes severe joint movement. Has many formulators and varies in quality: Some are toxic, some alligator with age. Tool with soapy water. May be too good for ordinary house caulking
Easy, but takes skill to do neat job	Critical on porous surfaces. Thoroughly clean and dry. Prime as recommended by manufacturer	Toluol, xylol, MEK	T: 5-30 mins. C: 1 day-1 wk.	10 yrs. or more	$3.95-$4.95 (3 oz. tube —$1.95)	Best weathering, bonds well to many surfaces, stays flexible, takes wide joint movement, high temperatures. Versatile. Uniform high quality. Cannot be painted (except Elmer$). Some dirt pickup. May harden in cartridge after a year. High cost may make it an overkill, except in bathrooms
Tough to get neat application. Best for hidden seams	Clean, dry, and oil-free. No primer	Xylol, toluol	T: 1 hr.-3 days C: 1-3 mos.	15-20 yrs.	$2.25-$3.70	Permanently elastic and soft, but can be painted when surface loses tack. Picks up dirt until fully tack-free in 2 to 3 days. Full cure takes 2 to 3 months. Not for continuous water immersion. Very low in solids, high in shrinkage
Must be warmed to apply when below 60°F. Takes skill	Reasonably clean and dry. No primer	Lylol or toluol	T: 15-mins.-1 wk. C: 1-2 wks.	20 yrs. and more	$2.45-$2.95	Superadhesive, long life, permanently plastic, little shrinkage. Need not be painted. Nonstaining, nonsagging, reseals itself. May require warming. Usually used by professionals
Requires skill. Must be warmed to apply when below 50°F.	Thoroughly clean and dry. No primer under most conditions	Xylol, toluol, or in some cases xylene or toluene	T: 6-24 hrs. C: 2-6 mos.	10-20 yrs.	$1.85-$2.60	Excellent ultraviolet resistance for long weathering. Stays flexible after curing. Can't be stressed or painted until cured. Surface stays tacky when used indoors. Should be tooled for best adhesion. Poor cold-weather application. Normally used by pros
Easy. Not tricky to gun	Thoroughly clean and dry. Primer sometimes needed on porous surfaces	Mineral spirits	T: 2-24 hrs. C: 2-5 wks.	1-7 yrs.	$.18-$.98	Low cost, familiar to all, paints easily. Wide quality range. Fair adhesion, hardens with age, relatively short life
Easy to apply with fingers	Clean and dry. Prime porous surfaces to prevent staining and bleeding	None	None	5-20 yrs. or more	$1.07-$1.39 for 50-90 ft. of ¼" material	Good adhesion to most surfaces. Can be stripped and used again. Never hardens or cracks, but picks up dirt if left unpainted

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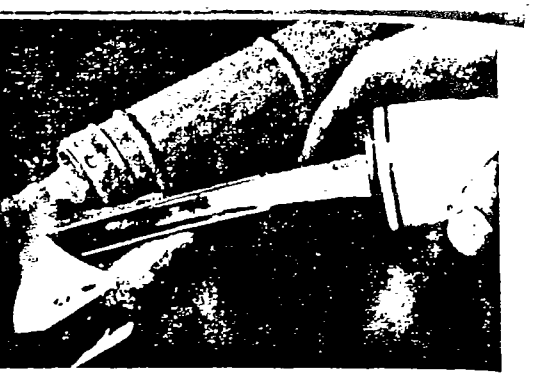
The new guns have built-in conveniences. Cutter in handle of Sears gun clips cartridge spout at desired angle, may save trip down ladder for cutting tool.



Same gun's trigger spring has sharp end that reaches down nozzle to pierce cartridge seal. If you neglect this step, cartridge may burst messily.

How many running feet can one 11-ounce cartridge fill?

		JOINT WIDTH				
		¼"	⅜"	½"	⅝"	¾"
JOINT DEPTH	¼"	25½	15½	12½	10	8½
	⅜"		11	8½	6½	5½
	½"			6½	5	4
	⅝"				4	3½
	¾"					2½



Smooth the fresh bead with cloth dipped in proper solvent—plain water does it for acrylic latex. For appearance, this must be done before caulk skims over.

If you'd be stumped for a reply, see our chart. It gives you comparative facts that help you match the sealant to the job.

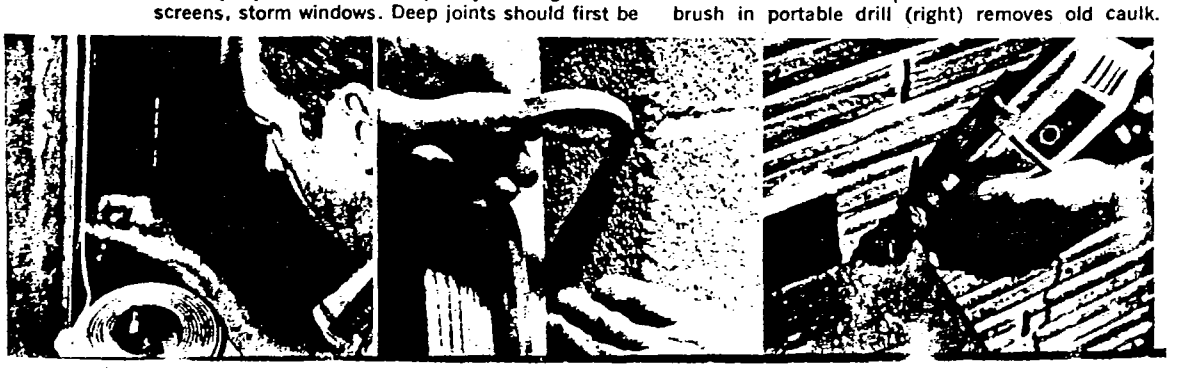
And that's the great thing about all those new caulks—they turn you into a specialist. Where you once had to stretch that single type of caulk over a variety of jobs it wasn't suited for, you now can seek out the compound that's designed especially for the use you have in mind, and then decide if its predicted performance is worth the higher price.

There are even more specialized sealants formulated of the materials we list in the chart, but chemically adapted for specific uses. Here are some brands we didn't consider general enough for the chart, grouped by the job they do:

- Roofs: DAP Black-Tite; Wards Wet or Dry Surface Roof Patch; Sears Roof Flashing Compound.
- Blacktop: Wards Asphalt Crack Filler; Sears Blacktop Crack Filler.
- Metal: Goodyear Pliogrip Seam Sealer; Sears Gutter Mend; DAP Gutter and Lap Sealer; Pecora Gutter Sealant; Wards Gutter seal.
- Concrete and Masonry: DAP Cement Patching Compound; Wards Mortar Joint Filler; Wards Concrete Crack Filler; Sears Flexible Cement Crack Filler.

[*Continued on page 202*]

There's still a place for familiar joint fillers. Rope caulk (left) is fine for temporary sealing around screens, storm windows. Deep joints should first be stuffed with compressible strip (center) so recess to be caulked is about square in cross section. Wire brush in portable drill (right) removes old caulk.



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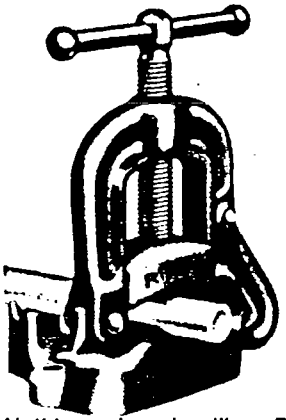

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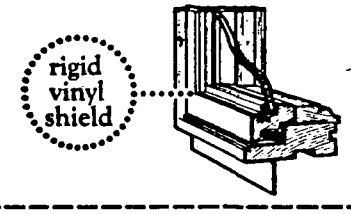

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All Those New CAULKS

[*Continued from page 152*]

• Glass: Dow Corning Aquarium Sealer; Pecora Aquarium Sealant.

• Automotive: GE Auto Seal; DAP Windshield Sealer.

And there's another whole family of sealants for boats, which will be covered separately in a future issue.

Are all these new caulks really that superior—or is it a case of overspecialization? I posed this question to top makers and sellers of sealants, including several who market a full family of caulking materials.

My first surprise was that Sears recently reduced its whole line of caulks to two types: acrylic latex and polysulfide rubber. (They guarantee the latter for 10 years.)

This didn't quite jibe with the views of Z. J. Obara, Vice President of DAP Inc. Research Division: "In the construction and maintenance of single-family homes, a polysulfide or silicone sealant is rarely necessary. These products are intended mainly for high-rise structures where major building stresses are involved. If a sealant with such rigorous performance characteristics is required for a low-level building, poor design or structural problems are present. Home owners should manage very well with a quality acrylic latex for use with paint and a butyl-rubber sealant where painting is not involved."

The fact is that it is possible to overinvest in sealant. For certain jobs, the old forms of oil-base caulk may be adequate. DAP must think so, even if Sears doesn't —and DAP still sells the stuff. But for most major caulking jobs you're safe with acrylic latex, deciding between butyl and polysulfide sealants for such special uses as joints between dissimilar materials. The chart will help you, there.

Don't dismiss the costlier products when they do a tough job best, however. The prime example is silicone rubber, for sealing around the bathtub or repairing leaking drainage pipes. Others have their place, too.

How to choose. Joint movement figures big in caulking. Thermal expansion and contraction of materials cause joints to widen or tighten with changes in temperature and humidity. Caulk in a joint shouldn't halt movement but should compress and stretch with it. Caulks for moving joints should be *elastomeric*, that is,

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should remain flexible. Such caulks are usually called sealants: butyl, polysulfide, silicone, solvent acrylic, hypalon and polyurethane. (We left the latter out of the chart because it's too new to recommend for home jobs.) Polysulfides and silicones take the greatest joint movement.

Caulk prices in the chart are retail. Unless otherwise identified, the price is for a standard 11-ounce cartridge. (Silicone cartridges are 12-ounce.)

Curing time. Caulks vary in the time it takes them to turn from fluid to solid. This is measured in two steps: tack-free time and curing time. Short tack-free time reduces dust pickup. It should be long enough, though, to give you ample time to tool the joint and clean up. Curing is the length of time it takes for the bead to set all through. Caulks cure by solvent evaporation, exposure to moisture, or exposure to air. Those that cure by solvent evaporation (oil-base acrylic latex, solvent acrylic, butyl, neoprene) shrink most.

Use all caulks as they come. Don't thin them—you'll increase shrinkage and lessen adhesion. To lengthen any caulk's life, paint it. The one exception is silicone rubber; paint won't stick to it.

Don't skimp on caulk. All joints should be at least ¼-inch wide and deep. Beads in moving joints should be roughly as deep as they are wide, and the width should be about four times the joint's movement. Deeper joints should be filled before caulking; if the caulk's label recommends a filler, use it. Since the bead shouldn't bond to the bottom of a moving joint, use a filler that won't bond to the sealant.

Filling isn't necessary in nonmoving joints, except to save on caulk. If the joint is over an inch deep, use a filler.

Joint preparation. Scrape out the old caulk down to a clean joint. Dust with a stiff-bristled brush. Wipe with a solvent-dampened cloth to remove grease deposits.

Most caulks don't need priming when applied to materials in the normal house. But follow label recommendations. Caulk makers are no more eager to clutter their packages with priming recommendations than cigarette makers are to print that "hazardous to your health" statement. If a primer is asked for, it's needed. PS

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