

# Choosing KNEEPADS

by Michael Springer



There's an incredible number of kneepads on the market — so many that it's practically impossible to figure out which ones to buy, or even how to make reasonable comparisons between models. For this article, I had to narrow the field, so I tested 24 designs. I concentrated mostly on gel models, which offer the highest performance, but I also included a couple of pads that rely on fluid-filled packs.

My goal was to find out which kneepads were the most comfortable and functional for various kinds of work.

I do remodeling and home repair, so in a given week I perform many different trades; I quickly discovered that kneepads that are good for one task may not be appropriate for others.

For greater comfort, look for pads that fit the work you do and try before you buy

## What Are Gel Kneepads?

Unlike conventional kneepads, which rely on foam padding alone, gel pads typically contain foam plus some kind of gel, a rubbery material that's more permanently elastic than foam. Foam contains air; once compressed, it provides little in the way of added shock resistance. Gel is more resilient; like a liquid, it can be displaced but not compressed.

The type of gel — and the amount used in each pad — varies widely. The stuff can be stiff, stretchy, rubbery, or so fluid it has to be encapsulated in plastic film. In some pads, the gel is used to fill the air spaces within a piece of foam; you'd have to cut the foam open to see that it was there. Some gel components are donut-shaped, with a gap to fit the kneecap; others are blocks of padding in various shapes (see Figure 1, next page).

***Knee-deep in pads.*** With so many pads to test and so much variation in design and intended use, it was difficult to make equal comparisons. Over a period of about five months, I used these pads on the job and put them through uniform qualitative tests. I talked to manufacturers about kneepad designs, and in a few cases cut pads apart to see how they were made.

After all that research, it turned out that the best predictor of long-term

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**Figure 1.** Padding for kneepads comes in all shapes and sizes. Clockwise from top left: The Patella-T pads distribute fluid with baffles. Irwin's products contain a soft tan gel encased in plastic. Duluth's kneepads use a textured gel-rubber insert. Most Craftsman models and all models from Nailers and Alta contain a blue donut-shaped piece of gel foam. In the Tommyco and Bucket Boss Extreme Gel kneepads, the gel is sandwiched between layers of neoprene.



**Figure 2.** Flat and concave soft-cap models (left) provide excellent stability because they bear flat against the ground. With curved caps (right), it's easy to roll forward and from side to side; if the caps are thin, it's more comfortable to lean back and kneel-sit.

comfort was how the pads felt the first time I put them on. The ones that fit and felt good from the very beginning continued to be comfortable as I used them on the job.

So when you're shopping for kneepads, start by identifying the type that suits the task. Beyond that, it's all about fit and comfort; if at all possible, try the pads on in the store.

### Cap Types

The best way to categorize kneepads is by the type of cap — the part that touches the ground when you kneel.

**Hard caps.** Pads with hard plastic caps slide easily across most surfaces, which is why carpet-layers like them. I use hard caps to do carpentry tasks like installing baseboard in rooms where the carpet is already down. I avoid wearing them on other surfaces, though; the hard caps can scratch tile and finished hardwood floors.

Of all the pads I tested, the hard-cap models had the greatest incidence of rotating out of position on my knees.

**Curved soft caps.** Curved soft-cap kneepads have rubbery caps that grip well and are unlikely to damage finished surfaces. Their curved shape allows for the side-to-side rocking motion common in flooring work — especially such tasks as spreading adhesive or grout and finishing concrete. Although these pads are usually a good all-around choice, their tendency to rock can put undue balancing strain on someone doing stationary upright kneeling work.

**Flat or concave soft caps.** Some kneepads are flat-bottomed and make contact across the entire surface of the cap. Others are concave and make contact at a series of flat raised points, much like a trivet. Both types have flat rubbery kneeling surfaces that provide good grip and superior stability (Figure 2).

Flat or concave soft-cap models are

## Hard-Cap Models

Model	Alta Proline	CLC G340	Craftsman GelTek 40655	McGuire-Nicholas Rocker (PREFERRED)	Nailers G-1 Gel Swivel
Cap surface	smooth	textured	smooth	smooth	textured
Grip	slick	slick	slick	slick	slick
Gel type	gel foam donut	gel foam donut	gel foam donut	gel rubber triangle	gel foam donut
Strap type: top/bottom	elastic-clip/webbing-clip	elastic-clip/neoprene-Velcro	elastic-clip/webbing-clip	none/neoprene-Velcro	none/neoprene-Velcro
Street price	\$33	\$33	\$30	\$35	\$30
Comments	These pads slide well and are fairly comfortable, but they tend to rotate off the knee.	These pads are wobbly and don't slide well on carpet. They're uncomfortable because the gel foam donut is low and easy to miss with your knee.	These pads slide well and are fairly comfortable, but they tend to rotate off the knee.	With their knee-hugging shape, these pads won't rotate off. They are the most comfortable hard-cap model.	Although these pads have a nice wide single strap and are fairly comfortable, their tread pattern makes sliding on carpet difficult.
					
					

ideal for tasks where you stay in one place for a while, such as installing door locks or undersink plumbing. I consider these pads the best overall for general construction and carpentry. The thick caps protect against rough surfaces and provide the surest grip on dirt, concrete, wood decking, and most roofing materials.

However, while the extra thickness allows for more padding, it can also cause problems by making the pads tippy and by putting more strain on the knee joint when kneel-sitting (sitting back on your heels). And it's dangerous to climb ladders in these pads, because the thick caps tend to snag on rungs.

**Fabric caps.** Fabric-cap pads are the

softest and lightest type of pad; they're designed to be especially protective of delicate surfaces. These models are a good choice if you need to kneel in an acrylic tub or crawl around on a finished hardwood floor. Their light weight means they're comfortable to wear and less likely to slide down your legs when you stand.

On the other hand, the fabric is

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### Curved Soft-Cap Models

Model	Alta Nomar	CLC G361	Craftsman GelTek 40653	Duluth Trading Co.	Irwin I-gel
<b>Cap surface</b>	smooth	textured	smooth	smooth	textured
<b>Grip</b>	grippy	grippy	grippy	very grippy	grippy
<b>Gel type</b>	gel foam donut	gel foam donut	gel foam donut	gel rubber insert	encapsulated gel pack
<b>Strap type: top/bottom</b>	elastic-clip/webbing-clip	rubber-pegs/rubber-pegs	elastic-clip/webbing-clip	none/webbing-elastic buckle	none/split neoprene-Velcro
<b>Street price</b>	\$33	\$27	\$30	\$35	\$20
<b>Comments</b>	These pads are moderately comfortable, but they feel tippy and tend to rotate off the knee.	With their full-surround plastic shell and removable straps, these pads are easy to clean. However, the gel foam donut is low and easy to miss with your knee.	These pads are moderately comfortable, but they feel tippy and tend to rotate off the knee.	Minimal cushioning and a buckle that digs into the back of the knee make these kneepads uncomfortable.	These pads straddle the line between curved and flat. They're comfortable when stationary, but flop around when you crawl.
					

subject to abrasion and may not provide enough protection on rough surfaces.

### Straps

Some kneepads have top and bottom straps; others have only bottom straps. Bottom straps do most of the holding; tops straps keep the pads in position when you stand or crawl. The problem with top straps is that they slide down behind the knee, where they can cut off circulation or cause painful binding, especially when kneel-sitting. The top straps can also pull pads away from their

ideal position under the kneecaps.

To minimize these problems, wear the top straps looser than the bottom ones; if the discomfort continues, unfasten the top straps during periods of prolonged kneeling.

The straps themselves are made from elastic, nylon webbing, mesh fabric, neoprene, rubber, or a stretchy blend of Lycra and Cordura. In general, wide straps are more comfortable than narrow ones. I prefer a single wide bottom strap, provided it's sturdy enough to hold the pad in place. If a single strap is not flexi-

ble, it will slide down your leg when you stand, so the strap on single-strap models is usually made from a stretchy material like neoprene. Unfortunately, neoprene doesn't breathe, which means it can be sweaty to wear.

On two-strap models, the bottom strap is often nonflexible webbing. Webbing straps are easy to cinch tight and to put on over pants, but they can work loose, which is why they're usually coupled with a stretchy upper strap.

**Velcro vs. clips or buckles.** There are two major types of fasteners for straps: Velcro

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Curved Soft-Cap Models					
Model	McGuire-Nicholas Gum Rubber Shell	Nailers G-2 Gel Gripper	Nailers G-3 Gel Ultra	Patella-T Non-Wedge (PREFERRED)	Patella-T Wedge (PREFERRED)
Cap surface	textured	textured	textured	smooth	smooth
Grip	very grippy	grippy	grippy	very grippy	very grippy
Gel type	gel rubber triangle	gel foam donut	gel foam donut	fluid pack	fluid pack
Strap type: top/bottom	none/split neoprene-Velcro	none/neoprene-Velcro	none/neoprene-Velcro	Lycra Cordura fabric-Velcro/Lycra Cordura fabric-Velcro	Lycra Cordura fabric-Velcro/Lycra Cordura fabric-Velcro
Street price	\$27	\$26	\$25	\$55	\$55
Comments	The gum rubber caps grip well. Though moderately comfortable, these pads would feel better if they were narrower and more form-fitting.	These pads are moderately comfortable, but they feel tippy and tend to rotate off the knee.	A full-surround plastic shell and removable straps make these pads easy to clean, but they're not particularly comfortable.	With their unique baffled fluid pack, these pads are among the most comfortable on the market.	These pads are the same as the Non-Wedge model, but with a widened face that provides more stability.
					
					

and some sort of clip or buckle. Velcro attachments are troublesome at first, because you have to tuck in your pants-leg material and pull the straps tight at the same time. Also, they're tricky to adjust — but they don't loosen during use.

Straps with clips or buckles, on the other hand, are relatively easy to put on, especially over pants, and can be tightened or loosened frequently during use. However, they are more likely than Velcro fasteners to work loose.

### Comfort

At first, my favorite kneepads were all in the same category — flat or concave models with grippy surfaces and lots of padding. But as time went by, my list of favorites grew to include pads from each

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### Flat or Concave Soft-Cap Models

Model	Bucket Boss Air-Gel2 (PREFERRED)	Bucket Boss Extreme Gel (PREFERRED)	CLC G350 (PREFERRED)	Craftsman Professional Level Balance	McGuire-Nicholas Stabilizer (PREFERRED)
Cap surface	textured	textured	textured/fabric	textured	textured
Grip	very grippy	very grippy	very grippy	grippy	very grippy
Gel type	gel foam rectangle	gel rubber rectangle	gel rubber rectangle	gel rubber donut	gel rubber triangle
Strap type: top/bottom	elastic-Velcro/ mesh fabric-Velcro	elastic-Velcro/ mesh fabric-Velcro		elastic-clip/ webbing-clip	none/neoprene-Velcro
Street price	\$35	\$35	\$43	\$40	\$47
Comments	These comfortable pads have the same cap as the Extreme Gel model but less padding. They're light, so they won't slide down when you stand.	With wide gel pads and a shock-absorbing face, these comfortable kneepads provide dependable cushioning.	Extremely large and heavier than most, these pads are incredibly well-cushioned.	The cap on these models flattens out to absorb shock. Overly stiff gel makes the pads uncomfortable.	A perimeter collar envelopes the knee on these pads, making them very stable and comfortable.
					
					

category. It took me a while to identify exactly why one pair of kneepads felt better than another, but eventually I realized what all the models I liked had in common: deep, thick padding.

The flat and concave models I favor tend to have large, solid gel pads that are easy to land on. The models I liked less tended to have donut-shaped gel pads,

which are comfortable only when your kneecap is centered over the hole. If your knee lands off-center, the edge of the pad creates an uncomfortable pressure point.

Some of the gel-foam donut pads are quite comfortable, but if you crawl around or get up and down a lot, they require frequent repositioning to maintain that comfort.

### Favorite Hard Caps

For descriptions of all 24 pads I tested, see the tables accompanying this article; the ones I liked the most are described here and in the following sections.

**McGuire-Nicholas Rocker.** This is the only hard-cap model I found to be comfortable. The high center of gravity and super-slick caps typical of this category

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Flat or Concave Soft-Cap Models (from previous page)		Fabric-Cap Models			
	<b>Tommyco 707 All Terrain (PREFERRED)</b>	<b>Model</b>	<b>Alta Flexline</b>	<b>Diamond Tough Gel 1 (PREFERRED)</b>	<b>Diamond Tough Gel 1R (PREFERRED)</b>
	textured/fabric	<b>Cap surface</b>	nylon	nylon (Kevlar reinforced)	nylon (rubberized)
	very grippy	<b>Grip</b>	slick	slick	very grippy
	gel rubber rectangle	<b>Gel type</b>	gel foam donut	gel foam donut	gel foam donut
	elastic-Velcro/webbing-clip	<b>Strap type: top/bottom</b>	elastic-clip/webbing-clip	none/neoprene-Velcro & webbing-buckle	none/neoprene-Velcro & webbing-buckle
	\$30	<b>Street price</b>	\$33	\$26	\$23
	With wide gel pads and a shock-absorbing face, these comfortable kneepads provide dependable cushioning.	<b>Comments</b>	These ultralight pads are very comfortable, but they'd be better if the gel donut were easier to hit.	With a single strap and a Kevlar-reinforced face, these light, comfortable pads wear well and won't slide down your legs when you stand up.	These pads are the same as the Gel 1 model, but with a grippy rubberized face.
					
					

give most models an unpredictable feel. The Rockers, however, are an exception. They are longer and lower than their counterparts, with a pronounced cuff around the top and sides that creates a 3½-inch-wide knee/leg channel. This channel hugs your knees, and a single wide strap holds the pads on firmly. While they are not as slippery as other

hard-cap models, I had no problem cruising around on carpet while keeping them square beneath me.

If you decide to buy McGuire-Nicholas pads, keep in mind that this company's earlier models were susceptible to rupture. This happened to me with a couple of their products, but the manufacturer fixed the problem by

switching to a stiffer gel formulation in September 2005. Check the tag under the strap to make sure the pads you buy were produced after that.

**Favorite Curved Soft Caps**  
*Patella-T Wedge and Non-Wedge.* Both of these produces are well designed and performed well. The Wedge has a slight

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T-shaped rib running across its grippy cap. It's designed not to rock from side to side and is intended for upright, stable kneeling. The Non-Wedge is my favorite in the curved soft-cap category. It's designed to rock, but its effective straps and low-profile padding make it much more stable than other pads in this category.

The Patella-T pads incorporate an unusual fluid-pack padding system: It's baffled, so the liquid can flow all around your knee, thereby relieving pressure points. When you wear these pads, you don't need to aim your knees in a certain direction — wherever they land will be comfortable.

Another unique Patella-T feature is that each model comes in two sizes.

### Favorite Flat or Concave Soft Caps

**Bucket Boss Extreme Gel and Tommyco 707 All Terrain.** These two kneepads, virtually clones, are my overall favorites. Both have a super-grippy concave cap with extended rubber fingers that flex to provide initial shock absorption above and beyond what the padding supplies. And both feature a large rectangular piece of gel sandwiched between layers of neoprene, which provides thick cushioning no matter where your knee lands in the pad. The Tommyco cap even snaps off to expose a fabric cap underneath.

**Bucket Boss Air-Gel2.** This is a lighter version of the Extreme Gel pad described above. It has the same cap and a tight wrap-around fit that I like but might be too snug for the largest knees. It contains less padding than the Extreme Gel, so it's somewhat less comfortable — still, it's comfortable enough. Since the reduced padding makes for lighter weight, the kneepads are less

likely to slide down your legs when you stand.

**CLC G350.** At more than a pound apiece, these are the largest and heaviest kneepads I tested. They have a wide, flat contact patch for great stability and a deep, soft gel pad that the knee sinks right into. These pads also feature snap-off caps with stiff nylon fabric underneath. The double bottom-strap design is a bit fussy but allows for a wide fitting range.

Though very comfortable, these pads are rather heavy and somewhat clunky.

**McGuire-Nicholas Stabilizer.** This flat-cap model hails from the only company that specifies left and right kneepads. The gel pad is triangular to match up with the contact area of the specific knee; a perimeter collar adds stability by enveloping the kneecap.

Another unusual characteristic is the pad's cantilevered cap area, which supports the shin without directly bearing on the ground. The single split strap effectively minimizes binding.

As mentioned previously, it's important with this brand to check the date of manufacture; it should be September 2005 or later.

### Favorite Fabric Caps

**Diamond Tough Gel 1 and Gel 1R.** These are my favorites in the fabric-cap category. Both models have a single wide, comfortable neoprene strap with a webbing belt backup and a deep cuff, a design that helps hold the pad steady around the knee. The Gel 1 has a Kevlar reinforced nylon face that is slick on hard flooring but pretty grippy on carpet; the Gel 1R has a rubberized nylon face that sticks to anything.

Together, the forward position of the donut hole and the deep cuff kept my knee in place better than other

## Sources of Supply

### Alta Industries

800/788.0302  
www.altaindustries.com

### Bucket Boss

888/797-7855  
www.pullr.com

### CLC/Custom LeatherCraft

800/325-0455  
www.clccustomleathercraft.com

### Craftsman

800/549-4505  
www.craftsman.com

### Diamond Tough

A. Bottini Enterprises  
650/595-1992  
www.abottini.com

### Duluth Trading Co.

800/505-8888  
www.duluthtrading.com

### Irwin Industrial Tools

800/464-7946  
www.irwin.com

### McGuire-Nicholas

800/879-1333  
www.mcguire-nicholas.com

### Nailers

800/221-9036  
www.nailersrock.com

### Patella-T

877/604-9269  
www.patella-t.com

### Tommyco

800/563-3723  
www.kneepads.com

kneepads of this type. The Gel 1 and 1R are soft and pliable and very comfortable; they provide gentle, spongy support when you kneel and stay up well when you walk.

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