# **Rainwear: How to Choose**

Performance rainwear choices include waterproof/breathable or water resistant; Gore-Tex® or eVent® laminates versus fabric coatings; hard shell or soft shell; and more.

What is the best rainwear for you? This article will help you narrow the search.

Shop REI's selection of men's rainwear and women's rainwear.

## Main Considerations

Function: *Will it keep me dry*? When new, rainwear touted as "waterproof" is rain-worthy. Over time, however, rainwear fabric requires care to revive its watershedding ability. (Such maintenance is often overlooked.) What about soft shells? Most are "water-resistant," meaning they can withstand light precipitation but not a drenching rain.

Comfort: *Will I swelter inside it?* While waterproof/breathable fabric technologies can make rainwear comfortable to wear during vigorous activity, so can other factors: use of vents, individual metabolisms, humidity, temperature, the clothing worn underneath rainwear, and more.

Durability: *Can it handle hard use?* Face fabrics (nylon or polyester, usually) come in different weights, or denier, a spec not always provided by manufacturers. Though 70-denier (70D) is a common weight, outerwear fabrics can range from 15D (wispy) to 450D (burly). Aim for midweight (70D, often found in 3-layer designs) or higher if you like to climb, scramble or bushwhack off-trail. Sticking to trails? Save ounces by choosing a lightweight design.

Appearance: How do I look? Rainwear designed for the trail aims for low weight, easy packability and pocket positioning that won't interfere with backpack straps or a climbing harness. Rainwear for travel or around-town use is styled with a fuller cut, more pockets and less fussiness over weight.

Price: *Why such disparity*? High-end rainwear usually features a waterproof/breathable laminate, meticulous seam-taping and exceptional detailing, right down to tiny protective awnings over zipper heads. Lower-cost rainwear is cut looser and often uses waterproof/breathable coatings (generally less breathable than laminates). Still, coated rainwear is quite adequate for moderate activities, and it's light and easy to pack.

Tip: Use your past experiences to help you shop. Are you seeking something more breathable? More durable? Lighter? Something exactly the same? Consider the typical intensity level of your activities and your personal metabolism, too.

## Types of Rainwear

Examples:

### Waterproof/Breathable (WP/BR) Rainwear

Traditionally the most popular rainwear for active people, this category is suited for the widest range of uses. WP/BR fabrics repel nonstop precipitation yet allow perspiration vapor to escape—though sometimes not as quickly as you might desire. Rainwear using high-tech laminates (Gore-Tex, eVent, Dry.Q) or membranes generally have an edge in breathability over rainwear using coatings. Note: Laminates and coatings are briefly compared below and explained in detail in our companion article <u>Rainwear</u>; How It Works.



 Laminates: Gore-Tex PacLite; Gore-Tex Pro; Gore-Tex Active; eVent; MemBrain (by Marmot); Dry.Q (Mountain Hardwear); some versions of REI Elements (used in the REI Hurricane Ridge Jacket).

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#### Shop REI's Selection



Women's Rain Jackets

• Coatings: HyVent (The North Face); some versions of REI Elements (used in the REI Rainwall Jacket).

Recommended users for rainwear using laminates:

- · Frequent, year-round or high-elevation backpackers.
- Mountaineers.
- Trail runners.
- Cyclists.
- Paddlers.
- Adventure travelers.
- Backcountry skiers/snowshoers.

Recommended users for rainwear using fabric coatings:

- · Summer-season backpackers and day hikers.
- Travelers.
- Birders.
- Anglers.
- Fitness walkers.

Laminate vs. Coatings

A nutshell comparison of waterproof/breathable technologies.

Laminate	Coating
Wallpaper glued to a wall	Paint spread on a wall
Expanded polytetrafluoroethylene (ePTFE), polyurethane (PU) or polyester membrane	Many formulations of polyurethane (PU)
Gore-Tex; eVent; Dry.Q	HyVent
Even	Even
Better	
Better	
Varies	Varies
	Better
	Laminate Wallpaper glued to a wall Expanded polytetrafluoroethylene (ePTFE), polyurethane (PU) or polyester membrane Gore-Tex; eVent; Dry.Q Even Better Better Varies 

Pros:

- · Keeps active people more comfortable than traditional rainwear.
- One jacket can suit many activities.

Cons:

- No universally accepted standard for breathability exists, so breathability performance is hard for a consumer to measure; breathability can vary widely from garment to garment, brand to brand.
- Costlier than other rainwear types.

## Water-resistant/Breathable Rainwear

These are designed for strenuous, highly aerobic activities in cool conditions or when the biggest precipitation threat is a light shower, mist or dry snow. Water-resistant garments delay water penetration but do not prevent it. Best of this breed: soft-shell fabrics, consisting of tightly woven yarns that are stretchy, abrasion-resistant and highly breathable. Also in this category: uncoated fabrics treated with a durable water repellent (DWR) finish.

Examples:

- Soft shells (designed with Polartec Power Shield; assorted textiles from Schoeller; Gore WindStopper).
- · Wind shirts; some outdoor fitness apparel.

Recommended users:

- · Backpackers who value breathability and can tolerate dampness.
- Climbers who value stretchiness and can tolerate dampness.



- Day hikers expecting a light drizzle at the most.
- Backcountry skiers/snowshoers.
- Alpine skiers in spring conditions.
- Cyclists.
- Trail runners/fitness walkers.

Pros:

- Excellent breathability.
- Sometimes lighter than WP/BR shells.
- Usually less expensive than WP/BR shells.

Cons:

- Some include no hoods; most offer no sealed seams.
- Modest to minimal insulation value.
- If rain becomes steady or hard, fabric can become saturated.

### Soft Shell or Hybrid Rainwear

These are soft-shell designs engineered with a WP/BR laminate. Their breathability is no different than traditional "hard-shell" rainwear; their advantage is the added stretch found in soft-shell fabrics, giving them appeal to climbers and other users who value flexibility in their outerwear. Jackets that mixed areas of hard- and soft-shell fabrics have mostly vanished.

Examples:

· Gore-Tex Soft Shell.

Recommended users:

- Climbers.
- · Backpackers/day hikers.
- Snowsport enthusiasts who encounter wet spring conditions.
- Trail runners/fitness walkers.

Pros:

- Enhanced stretch.
- Keeps wearers dry in a downpour.

Cons:

• No gain in breathability usually associated with soft-shell fabrics.

## Waterproof/Nonbreathable Rainwear

Fabrics (usually fully coated) where rain does not get in, and sweat does not get out. They are intended for minimal activity or emergency use, and are best sized large in order to vent out body heat. For example, bibs for fishing are cut loose and have no elastic waist; warm, moist air can rise as if ascending a chimney.

Examples:

- · Coated jackets, ponchos
- Recommended users:
- · Birders/wildlife viewers.
- Anglers.
- Sports spectators.

Pros:

Inexpensive.

Cons:

Often stiff; can feel hot or clammy if temperatures rise or your activity level increases.

## **Rainwear Construction (Layers)**



Laminates and coatings are relatively delicate, and abrasion can create tiny leakage channels. Thus WP/BR jackets usey some type of skin-facing inner layer for protection and are described as 2-layer, 3-layer or even 2.5-layer designs. Here is a brief primer:

#### 2-Layer: The Most Affordable

These comparatively basic garments have a membrane or coating applied to the face fabric Wind to form 1 layer. The second layer is often a loose-hanging liner, usually mesh, that is stitched into the interior of the jacket. This suits many people, though some find the liner a bit too loose and bulky-feeling. The liner is needed to protect the laminate or coating from abrasion. Twolayer jackets are a touch heavier and less breathable than other designs, and they are primarily intended for day trips or urban activities.

#### 2.5-Layer: The Lightest Weight

These use a low-weight face fabric (first layer), a polyurethane-based WP/BR laminate or coating (second layer) and a bare-minimum protective inner layer (more like a sheen than an actual layer, which is why it is considered a half-layer). These garments, typically 16 ounces or less, are intended for ultralight wilderness travel and weight- and spacerestricted travelers. Two topselling examples: the Marmot Precip and REI Ultra Light



2 Layer

Perspiration

Jacket. Backcountry travelers who favor more breathable soft shells as their principal outerwear often toss a 2.5-layer jacket into their packs just in case a deluge hits. If abrasion-resistance is not one of your key concerns, 2.5-layer garments (particularly those with laminates) deliver high performance for a moderate price.

#### 3-Layer: The Most Durable

Jackets in this category offer rugged yet low-weight WP/BR protection. No coatings are used here, just laminates, with a membrane tightly sandwiched between the face fabric and a body-facing liner. Jackets in the category offer a sleek, athletic fit and face fabrics that can handle less-than-gentle treatment. This makes them well-suited for serious climbers and backpackers. Products in this category aspire to high breathability, high durability and



relatively low weight, albeit at a somewhat higher cost.

#### **Rainwear Details**

Little things can make a difference in your jacket or parka. Some to watch for:

Seam taping: Seam tape seals puncture holes created when sewing needles stitch together fabric panels. Virtually all top-brand WP/BR garments offer factory-taped seams. A few high-end manufacturers use narrow seam tape, which saves a few grams. Some skiwear items offer "critical" seam taping. This means only seams in high rain exposure areas are taped; side seams, for example, may be omitted in an effort to keep costs down.

Weight: Rainwear designed for rugged use tends to weigh more; fewer conveniences (pockets, zippers, wrist adjustments) result in lower weight. Low weight vs. convenience—it's the eternal outdoor explorer's conundrum. For casual ramblers, it may be wise to aim light and resist the temptation to over-fortify yourself when a lightweight, 2.5-layer Marmot Precip (13 oz., men's medium) or REI Ultra Light (16 oz.) will do.

Fit: Be aware that many technical jackets ("technical" is typically a code word for higher-cost, higher-performing gear) feature a trim athletic cut. They look sharp on a corresponding body type, but may feel snug to some people and could make layering a challenge.

Hoods: Some are extra roomy to accommodate a climbing helmet. Such hoods can appear enormous on a helmet-free noggin, so be aware that it may require some adjusting to keep it from flopping in your face. For a sleeker appearance, look for a detachable or hideaway hood. Hoods with stiffened brims offer a nice rain awning that keep drips out of your face.

Vents: Nothing hastens the evaporation of sweat as well as direct air exposure. A jacket's biggest vent is its front zipper; some are 2-way, meaning you can unzip them from the bottom—a handy venting option. Some chest pockets or hand pockets double as core vents, which is another plus.



Armpit zippers: Minimalists will complain that they add weight (and they're right), but "pit zips" are a splendid air-circulation feature. Jackets that offer such an extra may also provide wrist adjustments that can be tightened or loosened to regulate airflow on your arms.

Articulated tailoring: Articulated sleeves, gusseted underarms and so-called "angel-wing" construction allow sleeves to bend naturally without causing cuffs to ride up your forearm. Also, when you raise your arms overhead, your lower torso remains covered. Very helpful.

Linings: Those aiming to save space and weight should choose a 3- or 2.5-layer design (described above).

Chin guards: Some jackets offer soft material at the top of the front zipper channel so nothing but fleecy goodness touches your chin when the jacket is zipped up. It's a nice extra.

Storm flap: Front zippers sometimes come with a draft flap. It stops wind from slipping through the teeth of the zipper, but adds a hint of weight to the garment.

Pockets: Fewer are found on technical jackets than on urban-minded designs. Designers shrewdly position them to avoid conflict with backpack straps and hipbelts or a climbing harness. Options include music pockets (with headphone ports), inner mesh pockets for storing climbing skins or keeping water bottles from freezing, and zippered security pocket for IDs.

Back length: REI.com includes this spec—the distance between the between the base of a garment's collar and the bottom of its hem. This measurement can help you envision how a rain jacket will fit. Most rainwear is jacket-length, with the

hem resting just below the hips. Some are parka-length designs, which cover a wearer's backside.

Drawcords, snow skirts: Drawcords in a jacket's hem allow you to snug the fit to avoid whipping winds. Snow skirts, usually found only in winter parkas, accomplish the same task at waist level.

Noise: Some jacket fabrics create a swishing sound during arm swings. Nylon is usually a little more audible than polyester. Soft shells earn high marks here; they are typically much quieter than nylon or polyester hard shells.

## Soft Shells vs. WP/BR Fabrics

Soft shells rate a mention as an outerwear option for highly aerobic activities. Some adventurers even prefer them over traditional outerwear.

Two types of soft shells (not always easy to tell apart) are available:

**Traditional soft shells:** These offer a water-resistant, tightly woven fabric distinguished by excellent stretch and breathability.

- Pros: A good choice for highly aerobic activity (backpacking, Nordic skiing, snowshoeing, trail running, climbing) where flexibility and breathability are prized; capable of withstanding lighter showers.
- Cons: If a soaking downpour hits, the fabric will likely become saturated at some point and you will feel wet.

Soft shells with a WP/BR membrane: These offer more stretch than a WP/BR garment, but with a reduced level of breathability (though one usually comparable with higher-performing WP/BR hard shells).

- Pros: Good for the same activities mentioned above, particularly climbing in wetter environments (where the extra stretch coupled with better weather protection pays off).
- Cons: When the weather clears, it will not be as breathable as a membrane-free soft shell.

Tip: Most soft shell users carry a no-frills "hard shell" for hard rain, heavy wind or a touch of extra warmth. A hard-shell/soft-shell combo adds up to some extra ounces, but it could offer you a just-right mix of protection.

## **Guidance for Choosing**

#### What If:

Breathability matters most? Consider...

- 3-layer laminate—costlier, yes, but if you push your intensity threshold, the payoff in comfort is easily worth the price. Top performing laminates include eVent and Gore-Tex Pro Shell.
- Soft shell (without a WP/BR membrane)—these lead the breathability parade, but if a serious cloudburst hits, you'll yearn for a WP/BR jacket.

Waterproofness matter most?

 Any garment—2-layer, 2.5-layer or 3-layer—classified as waterproof will serve your needs. Your activity level will determine your final choice, with 3-layer designs targeted at the most active wearers. Some rain jackets are promoted as providing a waterproof rating of 40 to 45 psi (water pressure per square inch). Wind-driven rain, meanwhile, exerts a force of roughly 2 psi.

Warmth matters most?

 Don't count on rain shells to provide much thermal insulation. Even soft shells are marginal insulators. Look for insulated outerwear instead.

Weight matters most?

• 2.5-layer garments with a WP/BR laminate or coating are the top choice, with some options weighing in around 8 ounces.

Durability matters most?

- In the WP/BR category, 3-layer laminates are best for rugged use (and Gore-Tex's long record of durability shines here).
- · All soft shells-their tightly woven face fabrics are abrasion-ready.

Flexibility/maneuverability matters most?

- Soft shells—the ability to stretch is one of their key attributes; any model that claims "4-way stretch" is especially stretchy.
- · Some hard-shell garments feature stretch panels to boost flexibility.

#### Cost matters most?

 Coated/nonbreathable rainwear will keep you dry at an economical cost; just avoid much activity. Soft shells, 2-layer and 2.5-layer WP/BR garments are often moderately priced.

Convenience and comfort matter most?

2-layer jackets offer the most relaxed, roomy fits, plus have a relative abundance of pockets.

Versatility matters most?

• If you want a single do-it-all rain jacket, consider a 3-layer WP/BR laminate with a high-denier fabric that can withstand abrasion.

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