

Raingear Roundup - BackpackingLight.COM Product Review

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Trail's Best Award
Honorable Mention

MANUFACTURER	FROGG TOGGGS	FROGG TOGGGS	FROGG TOGGGS	FROGG TOGGGS	GOLITE
Model	Original Pullover	Pro-Action Jacket	Raincoat	Wind Shirt	Newt Jacket
Style	hooded pullover	hooded jacket	hooded jacket, long	non-hooded long sleeve crew	hooded jacket
Sample Size	men's SM-MD	men's SM-MD	men's SM-MD	men's SM-MD	hooded jacket women's L
Weight	7.1 oz	9.5 oz	10.1 oz	7.6 oz	8.6 oz
MSRP	\$35	\$45	\$40	\$35	\$105
Final Grade	B-	A-	B-	D+	B

Brief Summary Comments

Truly ultralight, but suffers ventilation problems.	Best jacket for layering and mobility, surprisingly durable.	Novel long hem offers extra protection for lower trunk in rain.	Inappropriate in virtually every way for backpacking use.	Cheaper than the Squall and a good value in a wp-breathable.
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FABRIC SPECIFICATIONS

Face fabric type	nonwoven polypropylene	nonwoven polypropylene	nonwoven polypropylene	nonwoven polypropylene	1.1 oz/yd ² 30d ripstop nylon
Inner lining fabric type	nonwoven polypropylene	nonwoven polypropylene	nonwoven polypropylene	nonwoven polypropylene	polyurethane matrix
Waterproofness					
Waterproofing technology type	polypropylene membrane	polypropylene membrane	polypropylene membrane	polypropylene membrane	microporous membrane
Waterproofing technology bonding	ultrasonic fusion	ultrasonic fusion	ultrasonic fusion	ultrasonic fusion	laminated
Waterproofness specification	23 psi	23 psi	23 psi	23 psi	21 psi
Waterproofness test method	ASTM D751 A	ASTM D751 A	ASTM D751 A	ASTM D751 A	not reported
Field observations of waterproofness	good	good	good	good	good
Finished fabric weight	2.8 oz/yd ²	2.8 oz/yd ²	2.8 oz/yd ²	2.8 oz/yd ²	2.7 oz/yd ²
Breathability					
Is the finished fabric breathable?	yes	yes	yes	yes	yes
Breathability specification	1500 g/m ² /24 hr	1500 g/m ² /24 hr	1500 g/m ² /24 hr	1500 g/m ² /24 hr	5300 g/m ² /24 hr
Breathability specification test method	ASTM E 96 D	ASTM E 96 D	ASTM E 96 D	ASTM E 96 D	JIS L1099
Durability					
Abrasion resistance	fair	fair	fair	fair	good
Tear resistance	fair	fair	fair	fair	good
Puncture resistance	fair	fair	fair	fair	fair-good

GARMENT SPECIFICATIONS AND FEATURES

Pockets					
Pocket types	kangaroo	none	2 handwarmer (pass through only)	none	2 handwarmer
Are pockets accessible while wearing pack?	yes	n/a	yes	n/a	no
What type of material is used in the pocket backing?	garment fabric	n/a	none (pass through)	n/a	jacket fabric
What type of storm flaps protect pocket openings?	flap	n/a	flap with snaps	n/a	flap
Waist Hem					
Waist hem type	elastic	elastic	straight	stretch synthetic knit, 2" wide	elastic
Waist hem adjustment mechanism	none	none	none	none	none
Waist hem length	short-medium	medium-long	very long	short-medium	long
Wrist Cuffs					
Wrist cuff type	elastic	elastic	elastic	stretch synthetic knit, 3" wide	elastic
Wrist cuff adjustment mechanism	none	none	none	none	none
Front Zipper					
Front zipper type	7.5"	full length	full length	none	full length
What type of storm flap protects the front zipper?	yes	yes, snaps	yes, snaps	n/a	front flap, snaps
Hood					
Does the garment have a hood?	yes	yes	yes	none	yes
Is there a stiffened brim on the hood?	none	none	none	n/a	none
Hood adjustment mechanism	dual toggles, nonelastic cord	dual toggles, nonelastic cord	dual toggles, non-elastic cord	n/a	dual toggles, elastic shockcord
Hood volume	medium-large	medium-large	large	n/a	medium
Torso volume	large	very large	large	medium	large
Ventilation					
Are pockets vented with a mesh backing?	no	n/a	yes	n/a	no
Are there other types of vents in the garment?	none	n/a	no	n/a	none
Are these vents adjustable?	n/a	n/a	no	n/a	no
What types of storm flaps protect the vents?	n/a	n/a	yes snaps	n/a	yes

GARMENT FIT AND MOBILITY

Head-turning mobility while wearing a pack	fair	fair	fair	n/a	good
Sleeve length - long enough to withdraw hands?	good	good	yes	good	good
Sleeve articulation - are wrists exposed when reaching overhead?	fair	good	fair	good	fair
Torso articulation - is waist exposed when reaching overhead?	poor	good	no	good	good
Torso articulation - do shoulders bind when crossing arms?	fair	good	fair	fair	good

STORM RESISTANCE

Are seams taped?	thermally fused (waterproof)	thermally fused (waterproof)	thermally fused (waterproof)	thermally fused (waterproof)	yes
Is the front zipper sufficiently protected with a storm flap?	fair	good	fair	n/a	good
Are vents adequately protected with storm flaps?	n/a	n/a	fair	n/a	n/a
Does the hood provide face (eye) protection when open?	good	good	good	n/a	fair
Does the hood protect the face protection when closed?	fair	poor	fair	n/a	poor
Is the fabric and construction conducive to retaining warmth?	good	good	good	good	fair

BREATHABILITY OBSERVATIONS

(Thermal & Moisture Comfort with Closed Vents & Zippers)

Breathability Index*	45%	45%	45%	45%	17%
Hiking (2-3 mph) without a pack on flat ground?	good	good	good	good	good
Hiking (2-3 mph) with a 25-pound pack on a flat trail?	fair	fair	fair	fair	fair
Hiking (1-2 mph) with a 25-pound pack uphill?	fair	fair	fair	fair	poor

VENTILATION OBSERVATIONS

(Thermal & Moisture Comfort with Open Vents & Partially Zipped Front Zipper)

Moisture Accumulation Index*	n/a	n/a	n/a	n/a	n/a
Hiking (2-3 mph) without a pack on flat ground?	good	good	good	fair	good
Hiking (2-3 mph) with a 25-pound pack on a flat trail?	fair	good	good	poor	fair
Hiking (1-2 mph) with a 25-pound pack uphill?	fair	fair	fair	poor	fair
do vents remain open when unzipped?	n/a	n/a	n/a	n/a	n/a

* Independent results provided by the Beartooth Mountain Outdoor Product Research and Testing Laboratory
Product Review Staff, "Raingear Roundup," Backpacking Light, Article No. 49 (December 16, 2001). <http://www.backpackinglight.com/index/49/>

Trail's Best Award Honorable Mention	Trail's Best Award Honorable Mention			Trail's Best Award Honorable Mention	
GOLITE Squall Jacket hooded jacket men's M 9.6 oz \$125 B+	INTEGRAL DESIGNS Sil Poncho poncho / tarp one size 8.9 oz \$70 A-	MONTANE Hyper-Activ Smock non-hooded wicking-lined pullover men's M 11.8 oz \$80 B+	MONTANE Sirocco Bike Smock non-hooded pullover men's M 5.9 oz \$50 B+	MONTANE Sirocco Jacket hooded jacket men's M 8.8 oz \$60 A-	MONTANE Sirocco Smock non-hooded pullover men's M 8.0 oz \$55 B
Lightest waterproof-breathable nylon jacket with room for layering.	The ultimate in multi-use gear (tarp, pack cover, raingear).	Terrific cold-weather raingear with a wicking thermal lining.	Breathable & well-ventilated, a durable no-frills "rain shirt"	An excellent all-around jacket with great breathability.	Decent all-around performance with good breathability.
1.1 oz/yd ² 30d ripstop nylon polyurethane matrix	1.1 oz/yd ² 30d ripstop nylon none	1.6 oz/yd ² 40d ripstop nylon synthetic wicking mesh	1.6 oz/yd ² 40d ripstop nylon none	1.6 oz/yd ² 40d ripstop nylon none	1.6 oz/yd ² 40d ripstop nylon none
microporous membrane laminate 21 psi not reported good	silicone coating 1 psi not reported good	microporous polyurethane coating 2.1 psi BS 3424 good	microporous polyurethane coating 2.1 psi BS 3424 fair	microporous polyurethane coating 2.1 psi BS 3424 fair	microporous polyurethane coating 2.1 psi BS 3424 fair
2.7 oz/yd ²	1.35 oz/yd ²	not reported	2.0 oz/yd ²	2.0 oz/yd ²	2.0 oz/yd ²
yes 5300 g/m ² /24 hr JIS L1099	no n/a n/a	yes 95% BS 3424	yes 95% BS 3424	yes 95% BS 3424	yes 95% BS 3424
good good fair-good	good good fair	good good fair	good good fair	good good fair-good	good good fair
2 handwarmer no jacket fabric flap	none n/a n/a n/a	1 kangaroo yes same as jacket fabric ALAN	kangaroo yes jacket fabric hook and loop flap	two handwarmer yes jacket fabric back flap	kangaroo yes jacket fabric ALAN
elastic none long	straight sewn-in grosgrain ribbon loops very long	elastic none short	Lycra none medium	straight dual single-pull toggles short-medium	elastic back, straight front dual single pull toggles short-medium
elastic none	n/a n/a	elastic none	straight hook and loop flap closure	straight hook and loop flap closure	straight hook and loop flap
full length front flap, snaps	none n/a	9" rear flap	9.5" back flap	full length, two-way back flap	10" rear
yes none dual toggles, elastic shockcord medium	yes none single toggle, elastic shockcord very large	no n/a n/a n/a	none n/a n/a n/a	yes no dual toggles, shockcord medium	no n/a n/a n/a
large	very large	trim	trim	trim-medium	trim
no rear flap no yes	n/a none n/a n/a	no two mid-torso "core" vents, 12" zippered none	n/a two mid-torso "core" vents, 12" zippered back flap	no no n/a n/a	no one side hem vent zippered none
good good fair good good	fair good poor good good	n/a poor good good good	n/a fair fair good fair	good good good good good	n/a good good good good
yes good n/a fair poor fair	no (sealant included) n/a n/a good fair fair	no fair poor n/a n/a good	no fair fair n/a n/a fair	no fair n/a fair poor fair	no fair poor n/a n/a fair
17% good fair poor	< 5% good fair poor	90% good fair poor	90% good good good	90% good good fair	90% good good good
n/a good fair fair n/a	n/a good good fair n/a	60% good good fair yes	n/a good good good good	n/a good good fair n/a	65% good good good good yes

Trail's Best Award Honorable Mention		RAINSIELD		RAINSIELD		RAINSIELD		TRAIL'S BEST AWARD WINNER		SIERRA DESIGNS		SIERRA DESIGNS	
Cross Training Jacket		Multi-Use Jacket		Sporting Jacket		Thunderlight Parka		Backpacker's Rainwear Jacket		Backpacker's Rainwear Jacket		Microlight Pullover	
non-hooded jacket men's M 4.3 oz \$32		hooded jacket men's M 4.7 oz \$27		hooded jacket men's M 8.5 oz \$47		hooded jacket men's M 12.6 oz \$65		hooded jacket men's M 11.3 oz \$60		hooded pullover men's M 8.3 oz \$40			
B+		B		C+		A		B		B		C-	
Incredibly light, no-frills emergency rain protection.		Lightest hooded rain jacket on the market but not so durable.		Can't compete with Frogg Toggs in any category.		Best all-around rain jacket with excellent ventilation features.		Most durable jacket in the review with a great hood.		Most durable jacket in the review with a great hood.		Poor breathability & ventilation make this for occasional use only.	
nonwoven polypropylene nonwoven polypropylene		nonwoven polypropylene nonwoven polypropylene		nonwoven polypropylene nonwoven polypropylene		2.2 oz/yd ² 70d ripstop nylon none		2.2 oz/yd ² 70d ripstop nylon none		2.1 oz/yd ² 70d nylon taffeta none			
polypropylene membrane thermal fusion 120 psi Mullens Burst Test good		polypropylene membrane thermal fusion 120 psi Mullens Burst Test good		polypropylene membrane thermal fusion 120 psi Mullens Burst Test good		microporous polyurethane coating 5.3 psi not reported good		polyurethane coating 1.1 psi AATCC127 good		polyurethane coating 1.1 psi AATCC127 good			
not reported		not reported		not reported		3.2 oz/yd ²		2.5 oz/yd ²		2.3 oz/yd ²			
yes 9600 g/m ² /24 hr ASTM E 96 (Inverted Cup)		yes 9600 g/m ² /24 hr ASTM E 96 (Inverted Cup)		yes 9600 g/m ² /24 hr ASTM E 96 (Inverted Cup)		yes 2500 g/m ² /24 hr JIS L1099		no n/a n/a		no n/a n/a			
poor poor poor		poor poor poor		fair fair fair		good good good		good good good		good good good			
none n/a n/a n/a		none n/a n/a flap		none n/a n/a n/a		2 handwarmer fair mesh hook and loop flap		2 handwarmer no mesh hook and loop flap		1 handwarmer, 1 kangaroo kangaroo yes, handwarmer no fabric flap over kangaroo pocket			
straight none medium		elastic none medium		straight none long		elastic band dual toggle medium		elastic shockcord dual single-pull toggles medium		elastic shockcord dual single-pull toggles medium			
elastic none		elastic none		elastic none		elastic hook and loop flap closure		elastic hook and loop flap closure		elastic band none			
full length none		full length flap		full length yes, snaps		full length rear flap		full length front flap, hook and loop closure		11" none			
none n/a n/a n/a		yes none dual non-elastic cords small		yes none dual non-elastic cords small-medium		yes none dual toggles, non-elastic cord medium		yes yes, 3" wide, stiffened dual toggles, elastic shockcord small-medium		yes none dual toggles, elastic shockcord medium			
trim		medium-large		medium-large		medium		medium		small-medium			
n/a none n/a n/a		n/a none n/a n/a		n/a none n/a n/a		yes pit zips, 16" zippered hood and loop		yes two mid-torso "core" vents, 11" zippered hook and loop		no no n/a n/a			
n/a poor fair fair poor		good fair good good good		good fair poor good fair		good good good good good		good fair poor fair good		fair fair fair fair fair			
thermally fused (waterproof)		thermally fused (waterproof)		thermally fused (waterproof)		yes fair good fair poor good		yes good good good good good		no no n/a fair poor good			
poor n/a n/a n/a poor		poor n/a fair poor fair		fair n/a fair poor fair									
91% good fair fair		91% good good fair		91% good fair fair		14% good good fair		< 5% good fair poor		< 5% fair poor poor			
n/a good good fair n/a		55% good good fair n/a		n/a good good fair n/a		75% good good good good		20% good fair poor fair		ALAN fair poor poor n/a			