Subject: Materials - Exposure to the Elements...
Posted by rbn on Sun, 22 Jan 2012 22:48:40 GMT
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I've been trying to refine my bike's hydration system as I haven't found any pre-built components that do everything that I'd like. Aside from being able to design them to my own specifications, there is also the benefit that the attachment mechanisms could be designed to mesh perfectly with my existing equipment (rather than having kludgy velco/zip-tie setups required when designing a product to attach to a variety of different configurations).

My concern, however, is how well these materials will hold up when exposed to the elements (UV, pouring rain, hail, humidity, oils/salt kicked up from the road, heavy winds, etc.) and being bathed with sweat/sports drinks? The Grey Robust material looked like my best bet but it appears to be discontinued. Stainless steel would likely work okay, but it's a good deal heavier than I'd like. The coloured WSF materials are interesting, but the notes about absorbing pollution and yellowing over time have me worried a bit.

As such, I was hoping to get some feedback as to how well these materials can hold up under those circumstances and/or if anything can be done to toughen them up on my end? Right now I'm just looking at something simple like this but with rigid mounting arms rather than the velcro. Down the road, there are a few more complicated parts (eg faired storage that mesh with aerofoil tube sections) that I'd like to play around with.

What I'd really like would be a food-safe plastic material so I could make my own bottles/tubing but for the time being I'll stick to parts that can better work with existing systems. Either way, I love the idea of this stuff and just have to find a way to make it work for me