

## ProGrade Memory Cards and Reader Review

by

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ProGrade is a new American company, founded by former Lexar executives, including one with experience at Sandisk dedicated to marketing very high quality flash memory cards and readers. Their initial products include professional grade UHS-II SD cards and CFast Cards. They have also demonstrated very high capacity CFexpress card, the next generation standard for high speed high capacity that is form-factor compatible with XQD cards. On the SD Card side they offer 200MB/s read and 80MB/s write cards in 64GB, 128GB, and 256GB capacities. These are marketed as V60 cards. They also offer an ultra high performance V90 line with 250MB/s sustained read rates and 200MB/s write rates. Both require UHS-II slots to reach these performance capabilities and are again offered at 64GB, 128GB, and 256GB capacity. On the CFast side, used by some Canon professional cameras, they offer 128GB, 256GB, and 512GB capacities with read speeds of 550MB/s and write speeds of 450MB/s. The CFexpress card prototypes are rated at incredible speeds of 1.4GB/s read and 1GB/s write speeds. There is the possibility that current cameras equipped with XQD slots, such as high end Nikon models, could use CFexpress cards with a firmware update by the camera manufacturers.



In addition to the cards, ProGrade offers a very high quality card reader that can read and write UHS-I/II SD cards and CFast cards. It is not compatible with traditional CF cards, XQD cards, or the future CFexpress cards. All of the memory cards come with a 3 year warranty and the card reader comes with a 2 year warranty.



A representative of ProGrade contacted me to see if I was interested in testing their cards in a professional photo environment. I agreed to test them with no agreement whatsoever to endorse them; just to use them and provide my thoughts. Since they do not make XQD cards and I don't have any CFast slotted cameras, they sent me their top speed V90 SD-XC UHS-II 64GB card and their reader. Upon opening the box that they were shipped in, one

immediately gets a feeling of quality. The packaging is attractive compared to what one normally finds in the memory card industry. The cards are made of what looks and feels like a high quality polymer and they are packaged in a small and attractive sleeve and plastic case. The reader is very nicely finished black plastic with a non slip base and LED activity lights for both the SD and CFast slots. Both a USB C 3.1 Gen 2 cable (compatible with Apple Thunderbolt 3 ports on modern MacBook Pros) and a USB 3 cable compatible with classic USB connectors are included.

On my recent trip to Finland, I used the ProGrade cards exclusively with no issues of any kind. This being my first full speed UHS-II reader, I was thrilled with the much faster download times of the cards to my computer. I found absolutely nothing to complain about with either product and only wish that ProGrade made XQD cards so that I could use my cameras with an XQD slot to their fullest extent. However, since they sent me the faster V90 SDXC cards, I never ran into any buffer limitations and found that the relatively slow buffer clearing of the Sony a7R III was faster with this card than it was with the Lexar UHS-II cards I had been using.

I ran some basic tests for read and write comparing a Sandisk UHS-I 64GB card (95MB/s rating), a Lexar 64GB UHS-II card (1000x rating - equivalent to 150MB/s), and a ProGrade 64GB V90 UHS-II card (250MB/s rating). I also tested the cards on a Lexar USB 3.0 reader and the ProGrade USB 3.1 Gen II reader. My test is a folder of 451 files that is 18.1GB in total size. The results can be seen in the table below:

Card	Pro Grade Reader (MM:SS)	Lexar Reader (MM:SS)
Sandisk 64GB UHS-I (95MB/s)	W= 5:31, R=3:14	W=5:31, R=3:16
Lexar 64GB UHS-II (150MB/s)	W=4:28, R=2:35	W=5:38, R=3:12
ProGrade 64GB UHS-II (250MB/s)	W=2:56, R=1:44	W=5:37, R=3:07



As can be seen from the data, the combination of a UHS-II reader and the faster card results in some pretty dramatic improvements in Write and Read speed. When using a UHS-I reader, there is no material difference in card speed as the reader is the rate limiter.

The next test was a full buffer clearing time test using the a7R III's UHS-II slot:

Card	Buffer Clearing Time
Sandisk 64GB UHS-I (95MB/s)	36.1s
Lexar 64GB UHS-II (150MB/s)	33.3s
ProGrade 64GB UHS-II (250MB/s)	22.9s

The results of the buffer clearing tests corroborate the reader results from above. The higher speed ProGrade card offers significant advantage in buffer clearing speed which can be a huge advantage if using a large file size, high megapixel camera like the Sony a7R III.

It is rare that I run across products where I have nothing negative to write about but despite looking hard, I could not find any flaws, from packaging, to customer support, to their website

and the products themselves. I can, without hesitation, recommend ProGrade memory cards. One suggestion that I do have for ProGrade is to include a way to recover data in case of user or camera error. Some competitors do include a license for data recovery tools should an error render a card corrupt. Of course the tools that these other manufacturers include do work on the ProGrade cards as well. Finally, I do wish that ProGrade made XQD cards but am glad that they are fully embracing the next generation CFexpress standard.

## Disclaimers

E.J. Peiker conducts consulting services and product design services for a number of photographic product companies.

E.J. Peiker is a co-founder of [www.Naturescapes.net](http://www.Naturescapes.net) and leads photographic workshops under the NatureScapes Certified Workshops banner

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