

# virus

## BULLETIN

Covering the global threat landscape

### VB100 CERTIFICATION REPORT APRIL 2019

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Malware has been causing problems for computer users for more than three decades, and anti-virus (or anti-malware) products have played an important part in mitigating those problems, initially taking on the leading role in protection and now taking more of a supporting role in amongst a cast of other forms of defence.

For more than two decades, Virus Bulletin has been testing anti-malware products, reporting on their performance as both the threat landscape and the products themselves have evolved, and has provided the VB100 certification scheme as a mark of distinction for those products that live up to expectation. The VB100 logo is the 'stamp of approval' conferred on products that satisfy a minimum standard of detecting malicious executables that have recently been seen in the wild, while blocking few to no legitimate programs.

This report details the performance of 34 anti-malware products from 31 different vendors tested during March and April 2019.

#### THE VB100 SET-UP

In the VB100 test, a copy of the product to be tested is installed on two platforms: *Windows 10* and *Windows 7*. On each platform, and at three different times in the test, the product is asked to scan both the latest version of the WildList<sup>1</sup> and a selection of clean files taken from *Virus Bulletin's* own set of files belonging to widely used legitimate software.

A legitimate file that is blocked at least once is considered a false positive, while a WildList file that isn't blocked is considered a miss.

<sup>1</sup> The WildList is an extremely well-vetted set of malware recently observed in the wild by researchers: <http://www.wildlist.org/>.

A product achieves a VB100 certification if:

- No more than 0.5% of WildList samples are missed and
- No more than 0.01% of legitimate files are blocked

For full details, we refer to the VB100 methodology on the *Virus Bulletin* website: <https://www.virusbulletin.com/testing/vb100/vb100-methodology/vb100-methodology-ver1-1/>. This test used version 1.1 of the VB100 methodology.

#### DIVERSITY TEST

The malware part of the VB100 certification uses the WildList, a regularly updated list of extremely well-vetted malware samples, guaranteed to have been spotted in the wild multiple times. This makes them very suitable for a certification test like VB100.

The 'Diversity Test' looks at products' detection of another set of recent malware samples, to acknowledge the fact that products detect malware samples beyond a standard set of samples, and provides a measure of that detection.

#### PRODUCTS & RESULTS

Products were allowed to download updates during the course of the test. The version numbers listed in the results that follows refer to those at the start of the test.

##### Adaware Antivirus Free

<b>Windows 7 version</b>	12.6.1005.11662
<b>Windows 10 version</b>	12.6.1005.11662
<b>WildList detection</b>	100.0%
<b>False positive rate</b>	0.000%
<b>Diversity Test rate</b>	98.94%



### Adaware Antivirus Pro

Windows 7 version	12.6.1005.11662
Windows 10 version	12.6.1005.11662
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	98.94%



### AVG Internet Security

Windows 7 version	19.3.3084
Windows 10 version	19.3.3084
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### AhnLab V3 Internet Security 9.0

Windows 7 version	9.0.53.1
Windows 10 version	9.0.53.1
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### Cynet 360

Windows 7 version	8.3.52.210
Windows 10 version	8.3.52.214
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



### Arcabit AntiVirus

Windows 7 version	2019.03.08
Windows 10 version	2019.03.09
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### Defenx Security Suite

Windows 7 version	15.1.0112
Windows 10 version	15.1.0112
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.65%



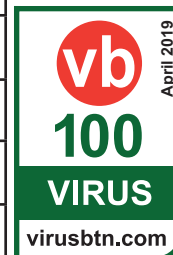
### Avast Free Antivirus

Windows 7 version	19.3.2369
Windows 10 version	19.3.2369
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### Emsisoft Anti-Malware

Windows 7 version	2019.2.0.9269
Windows 10 version	2019.2.0.9269
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### eScan Internet Security Suite for Windows

Windows 7 version	14.0.1400.2029
Windows 10 version	14.0.1400.2029
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.88%



### Faronics Anti-Virus

Windows 7 version	4.20.3102.471
Windows 10 version	4.20.3102.471
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.88%



### ESET Internet Security

Windows 7 version	12.0.31.0
Windows 10 version	12.0.31.0
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### FireEye Endpoint Security

Windows 7 version	29.0.0
Windows 10 version	29.0.0
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



### ESTsecurity ALYac

Windows 7 version	3.0.1.3.31873
Windows 10 version	3.0.1.3.31873
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



### Fortinet FortiClient

Windows 7 version	5.6.2.1117
Windows 10 version	5.6.2.1117
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.88%



### Exosphere Endpoint Protection

Windows 7 version	8.3.52.58
Windows 10 version	8.3.52.216
WildList detection	99.9%
False positive rate	0.000%
Diversity Test rate	98.82%



### G DATA Antivirus

Windows 7 version	25.5.0.2
Windows 10 version	25.5.0.4
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.88%



### Heimdal Thor Vigilance

Windows 7 version	2.5.173.3000
Windows 10 version	2.5.173.3000
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	98.94%



### NANO Antivirus

Windows 7 version	1.0.134.90112
Windows 10 version	1.0.134.90112
WildList detection	100.0%
False positive rate	0.003%
Diversity Test rate	99.29%



### IKARUS anti.virus

Windows 7 version	2.19.14
Windows 10 version	2.19.14
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.65%



### PCProtect

Windows 7 version	4.13.37
Windows 10 version	4.13.37
WildList detection	99.9%
False positive rate	0.000%
Diversity Test rate	99.29%



### K7 Total Security

Windows 7 version	15.1.0355
Windows 10 version	15.1.0355
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.65%



### Rising Security Cloud Client

Windows 7 version	3.0.0.85
Windows 10 version	3.0.0.85
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	77.76%



### Kaspersky Endpoint Security 10 for Windows

Windows 7 version	11.0.0.6499
Windows 10 version	11.0.0.6499
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### Scanguard

Windows 7 version	4.13.37
Windows 10 version	4.13.37
WildList detection	99.9%
False positive rate	0.000%
Diversity Test rate	99.29%



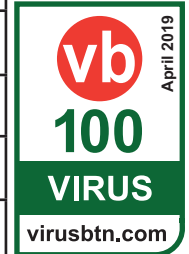
### TACHYON Endpoint Security

Windows 7 version	5.0.0.57
Windows 10 version	5.0.0.57
WildList detection	99.9%
False positive rate	0.004%
Diversity Test rate	98.24%



### Total Defense Premium

Windows 7 version	9.0.0.747
Windows 10 version	9.0.0.747
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



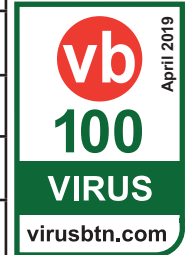
### TeamViewer Endpoint Protection

Windows 7 version	1.0.158353
Windows 10 version	1.0.158353
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



### Total Defense Unlimited V11

Windows 7 version	11.0.0.775
Windows 10 version	11.0.0.775
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.06%



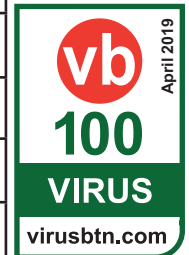
### Tencent PC Manager

Windows 7 version	12.3.26600.901
Windows 10 version	12.3.26601.901
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### VIPRE Advanced Security

Windows 7 version	11.0.3.20
Windows 10 version	11.0.3.20
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	100.00%



### TotalAV

Windows 7 version	4.13.37
Windows 10 version	4.13.37
WildList detection	99.9%
False positive rate	0.000%
Diversity Test rate	99.29%




### VirIT eXplorer PRO

Windows 7 version	8.8.82
Windows 10 version	8.8.83
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	61.41%



## Wontok SafeCentral Security Suite

Windows 7 version	2.0.1548
Windows 10 version	2.0.1548
WildList detection	100.0%
False positive rate	0.000%
Diversity Test rate	99.88%



## APPENDIX 1: PRODUCTS NOT CERTIFIED

*Cyren* failed to achieve VB100 certification in this test because its number of false positives was just above the threshold for VB100 certification.

## APPENDIX 2: EXCLUDED PARTS

- For *Adaware Antivirus Free* and *Adaware Antivirus Pro*, the results of the Diversity Test on *Windows 7* were discarded due to technical issues.
- For *Kaspersky Endpoint Security 10 for Windows*, the results of the Diversity Test on *Windows 10* were discarded due to technical issues.

## APPENDIX 3: SAMPLE SET SIZES

The WildList contained 2,341 samples. The set of clean files used for the false positive test contained 100,000 files, of which 29,187 were portable executable (PE) files. The set used for the Diversity Test contained 850 samples.

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