

VENT CAP SPECIFICATIONS FOR 8"+

1. GENERAL

The vent cap is intended to serve as a barrier to prevent ingress of insects or debris into a tank, while preventing rainwater entry, while allowing air exchange.

2. MATERIALS

Pipe cap	PVC (plumbing grade)
Pipe cap socket.....	ABS (3D printed)
Pipe fitting	PVC (plumbing grade)
Slip ring	PVC (plumbing grade)
Mesh screen (PP)	24 mesh [800 micron]



3. PERFORMANCE

- The mesh size of 24 mesh polypropylene is chosen because that meets or exceeds FDA and EPA specifications.
- The open area of the mesh is 40%. This will introduce a small pressure drop described by the pressure curves on our website.
- The peripheral holes are at least 40% of the pipe cross-sectional area.

4. STANDARDS

Standards established by NSF, ANSI, EPA and AWWA apply to vent caps. The caps we use meet ASTM D1784, classification 12454 B which covers the physical attributes. In addition they meet some other standards:

- The pipe and pipe fitting are NSF 61 certified.
- The plastic of the cap is FDA approved virgin food-grade resin and the resin contains UV inhibitors as required by the NSF 61 standard.
- The vent cap contains a 24 mesh screen. (to exclude insects)

Gizmo vent caps are non-corroding, since they contain no metals. Since the PVC is unplasticized, it contains no BPA or phthalates or any other leachable compounds. The plumbing fitting we use is certified NSF 61/14. The pipe cap we use is rated for water in drainage applications.

Also we do use a 3D printed part made of ABS to bond the pipe to the pipe cap. While the ABS doesn't contain chemicals of concern, 3D printed parts by nature do not present a smooth enough surface to enough to meet the requirements of NSF 61.

So in summary, we think the caps are suitable for potable water tanks because there are no toxic leachates contained in any of the materials of construction, there is the potential for microbial growth in the crevices of the ABS ring.