

Advantage[®] 420 Half-Mask Respirator

Durability Testing and Application Guide

MSA Advanced Durability Testing

- ➔ Accelerated age conditioning; 5 weeks at a constant 160° F: **PASSED**
- ➔ Tested to NIOSH CBRN full facepiece standard for environmental conditioning, consisting of 3 weeks of cyclic hot temperatures (160° F), 3 days constant cold at -25° F, 5 days cyclic temperature (88° F - 105° F), and humidity (59% RH-88% RH): **PASSED**
- ➔ Respirators were subjected to transportation simulation testing for 36 hours, using only poly bag for protection: **PASSED**
- ➔ Respirators with MSA GME-P100 Cartridges attached were subjected to drop testing: respirator was dropped 3 times (1 per axis) on concrete flooring from 5 ft. elevation: **PASSED**
- ➔ After completing all tests previously listed, facepieces must be able to pass mechanical tightness and back-leakage tests: **PASSED**
- ➔ Locking lever tested for strap abrasion; 2,500 cycles of opening and closing: **PASSED**
- ➔ Respirator cartridges were cycled on and off respirator 2,500 times with positive no-leak fit: **PASSED**
- ➔ Respirator strap/facepiece abrasion was tested with 2,500 cycles of pulling straps across face of respirator: **PASSED**
- ➔ Respirator cleaning cycles were performed to help ensure 10-year life with regular washings: **PASSED**

Note: these tests are not required by NIOSH; they are performed solely by MSA to help ensure long respirator life without degradation.

Built to Last in Tough Situations

The Advantage 400 Series Respirator has undergone extensive durability testing to help ensure a long life in many different work environments and applications.

- ➔ **High heat environments:** steel mills, foundries, hot-houses, coke ovens, bagging operations
- ➔ **Extreme cold conditions:** drilling rigs, construction, railroad repair, Northern climates
- ➔ **Welding applications:** hex chrome, carbon steel, brazing, soldering, metal pouring
- ➔ **Painting:** bridge repair, construction painting, coatings, chemical overlays
- ➔ **Rough handling:** transportation, construction sites, shipping, moving vehicles
- ➔ **Petrochemical exposure:** chemical manufacturing, dipping/coating operations, sampling



Note: this bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.

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