

Particulate Protection Level Comparison of Filtering Facepiece (Dust mask) and Half Mask (Elastomeric) Respirators

Definitions:

1. Filtering Facepiece (Dust mask) – a negative pressure particulate respirator with a filter as the integral part of the facepiece or with the entire facepiece composed of the filtering medium



2. Half Mask (Elastomeric) – a negative pressure respirator with a rubber facepiece and a separate filtering medium i.e. cartridge, canister, etc.



3. Assigned protection factor (APF) – the workplace level of respiratory protection that a respirator or class of respirators is expected to provide to employees when the employer implements a continuing, effective respiratory protection program

***Table 1 below is from the Occupational Safety and Health Administration (OSHA), 29CFR1910.134, Respiratory Protection.**

TABLE 1 – ASSIGNED PROTECTION FACTORS⁵					
Respirator Type ^{1, 2}	Quarter Mask	Half Mask	Full Face	Helmet/Hood	Loose-Fitting
Air Purifying	5	³ 10	50	-----	-----

¹May use respirators assigned for higher concentrations in lower concentrations or when required use is independent of concentration.

²These APF's are only effective when employer has a continuing, effective respirator program per 1910.134.

³This APF category includes filtering facepieces and elastomeric facepieces.

⁴Must have manufacturer test evidence to support an APF of 1,000 or else these respirators receive an APF of 25.

⁵These APFs do not apply to escape-only respirators. Escape respirators must conform to 1910.134(d)(2)(ii) or OSHA's substance specific standards, if used with those substances.

Table explanation: The two respirators defined in #1 and #2 above fall under the category of air purifying. Looking across the table and under “Half Mask”, there is a “³10”. Underneath the table is the sub note explanations. #3 says, “This APF category includes filtering facepieces and elastomeric facepieces”. Therefore, both the filtering facepiece (dust mask) and half mask (elastomeric) have the same APF of 10. This is from a particulate standpoint only because filtering facepieces do not have the ability to protect against vapor exposures.

***NOTE:** In order for this equal comparison to hold true, both types of respirators must be NIOSH (National Institute for Occupational Safety and Health) certified and the same classification such as N95, P100, etc. Also, both must be worn, adjusted, and cared for per the manufacturer’s instructions to provide the level of protection they are designed for.