

TECHNICAL SPECIFICATION

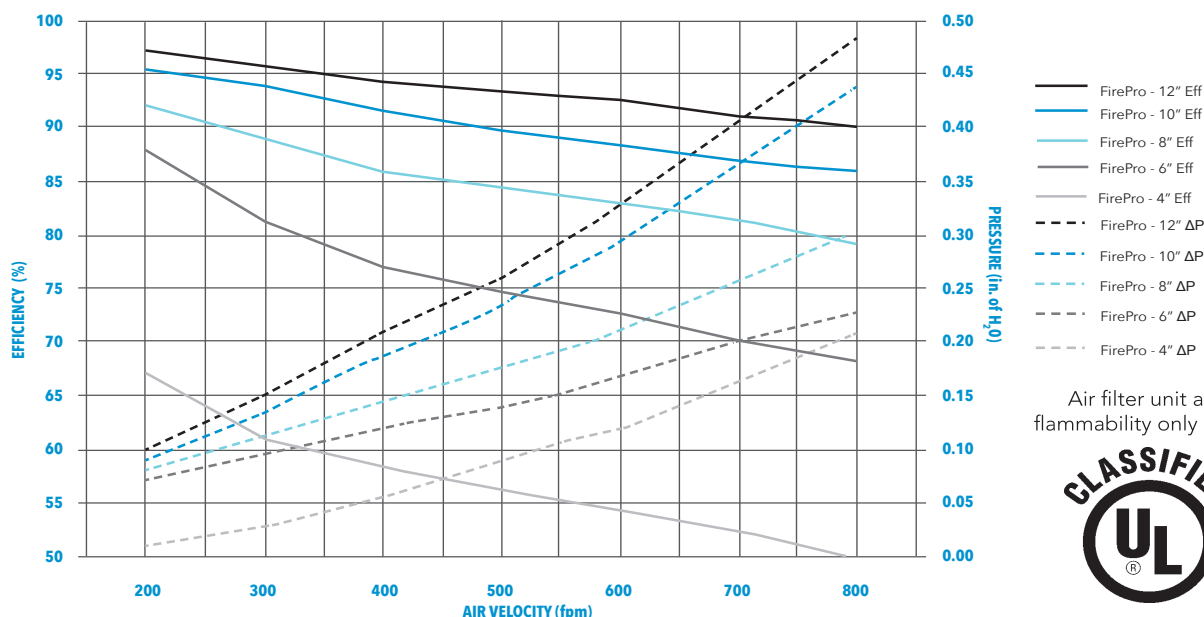
KUUL EVOLUTION FIREPRO™ EVAPORATIVE MEDIA

If you need adherence to fire codes, look no further than **FirePro**. This technology is made of flame retardant, inorganic materials fortified to provide you with the superior strength that is synonymous with Kuul® evaporative media. **FirePro** is designed to withstand the demands of even the toughest HVAC environment. Due to its unique material composition, **FirePro** has market-leading water absorption properties and saturation efficiency, which allows the product to rapidly respond to fast start-up conditions

and changes in demand.

Kuul Evolution™ evaporative media is a premier line of specialized evaporative media that provides enhanced cooling performance and reduced pressure drop due to the choice of materials, design process and proprietary manufacturing technique. Only the highest quality materials are used and all components of this line are manufactured in our Center, Texas, United States manufacturing facility.

KUUL EVOLUTION FIREPRO EVAPORATIVE MEDIA EVAPORATION EFFICIENCY AND PRESSURE DROP



Air filter unit as to flammability only R39037



- The performance data shown above is independently tested and verified by a third party under required, stringent testing conditions.
- Due to external factors including, but not limited to, installation practices, maintenance practices, water quality, humidity and ambient temperature, results may vary.
- The performance data shown above is based on wet media in optimal environmental conditions.

To learn more, visit

www.thekuuleffect.com

Kuul Custom Cassettes

Don't forget to add custom cassettes to your evaporative media. Evaporative media cassettes allow the media to safely travel without the threat of bent corners or warped edges. The cassette shields the edges with a strong layer of protection to ensure it arrives to the intended location in mint condition. Using customizable cassettes, clients can request the exact size to match their unique system specifications without the need to troubleshoot and cut the evaporative media themselves once it arrives. Learn more at thekuuleffect.com

TECHNICAL SPECIFICATIONS AND DESIGN INFORMATION

Please refer to the table below for information surrounding design and final installation requirements.

Density of media	[lbs/ft ³]	dry media = 1.29	wet media = 5.14
Water carrying capacity from dry to wet	[gal/ft ³]	0.617	
Maximum air velocity of media before carry-over	[fpm]	700	
Maximum air velocity of media using DE	[fpm]	800 (If greater consult Kuul Support)	
Maximum height of a single piece of media	[in "]	78.75	
Maximum system height per single header	[in "]	120 (If greater consult Kuul Support)	
Recommended supply water over top media surface area	[gal/min/ft ²]	1.7 to 1.9 (consult Portacool if system is > 100" in height)	

- For system design advice, please contact Kuul Technical Support for optimum choice
- Kuul offers design consultations to maximize your chosen system configuration

MAINTENANCE AND UPKEEP

FirePro media has been designed with superior wet strength and chemical stability. The following recommendations pertain to recirculating water in the system. The system should be controlled to prevent any of the following parameters from exceeding the listed value.

These guidelines are only valid for Kuul media. It is the responsibility of the design engineer and/or the system operator to evaluate if other system components have more strict limits for any of the parameters.

PHYSICAL AND CHEMICAL PARAMETERS	
Parameter	Guideline (unless otherwise agreed)
Total Alkalinity (mg/L as CaCO ₃)	Less than 250
Calcium Hardness (mg/L as CaCO ₃)	Less than 250
Chlorides (mg/L)	Less than 400
Conductivity (uS/cm)	Less than 3000
Dissolved Iron (mg/L as Fe)	Less than 1
pH (SU)	6.5 to 8.5
Silica (mg/L as SiO ₂)	Less than 100
Sodium (mg/L)	Less than 400 ²
Suspended Solids (mg/L)	Less than 20
BIOCIDES	
Free Chlorine (mg/L as Cl ₂) -Continuous -Periodic Shock Doses	0.5 to 2.0 Less than 7
DBNPA	Compatible
Isothiazolone	Compatible
Bronopol	Compatible
Notes: The values listed are provided in the absence of process data such as water temperature and run hours per year and are not adjusted to consider interactions between parameters. Please consult with Kuul Engineering for a project-specific water chemistry evaluation or if any of the listed limits are projected to be exceeded.	
If sodium form ion exchange (water softening) is employed the sodium levels will increase as hardness is removed. The increased sodium levels must be accounted for if this treatment process is employed.	
It is not recommended to use unblended RO, DI, or softened water with the media. Enough feedwater should be blended with the RO, DI, or softened water to allow for slightly scale dissolving water at design concentration.	

- For system design advice, please contact Kuul Support for optimum choice. Portacool, LLC is devoted to sourcing superior materials and manufacturing with the highest quality standards as well as ongoing product development. For current performance data, contact your Kuul® evaporative media expert.



PORTACOOOL
THE HOME OF KUUL™

To learn more, visit
www.thekuuleffect.com
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kuulsupport@portacool.com

936-598-5651