enVerid Data Sheet

LEED Credits for Sorbent Ventilation Technology®

Earn up to 9 points by using SVT with ASHRAE's Indoor Air Quality Procedure (IAQP)

enVerid
Energy savings. Air quality.

Optimize Energy Performance & Environmental Quality with SVT

Leadership in Energy & Environmental Design, or LEED, is the U.S. Green Building Council's (USGBC) globally recognized "green" building certification program that provides a framework to develop healthy, efficient, and sustainable buildings. Implementing enVerid's Sorbent Ventilation Technology® (SVT®) using a standalone HVAC Load Reduction® (HLR®) module or SVT integrated inside an AHU, RTU, or ERV can help buildings earn LEED points in the Indoor Environmental Quality (EQ), Innovation (IN), and Energy & Atmosphere (EA) credit areas.

SVT improves indoor air quality (IAQ) by directly removing gaseous contaminants from indoor air, which makes SVT eligible for LEED innovation and environmental quality points. When applied using ASHRAE's IAQ Procedure, SVT can also reduce outside air ventilation requirements and heating and cooling energy consumption, which can unlock additional LEED points associated with Optimize Energy Performance.

enVerid HLR Modules

Meet Prerequisite + Earn up to 3 Points for Innovation & Environmental Quality

The USGBC has developed the LEED BD+C *Minimum Indoor Air Quality Performance: IAQP Compliance Path* pilot credit (**EQpc165**) as an alternative path to earn the LEED Environmental Quality (EQ) prerequisite and up to 3 additional points under Innovation and EQ. There are two options to apply the IAQP on LEED projects. .

Option 1: Contaminant-based Acceptable IAQ Design

The table below shows potential points that can be earned by using the IAQP to comply with ASHRAE Standard 62.1-2022.

BD+C Credit	Requirements	Points	Awarded Credit
Minimum indoor air quality performance: IAQP compliance path	1. Design spaces per ASHRAE 62.1-2022, Section 6.3 Indoor Air Quality Procedure, using the compounds and limits in Table 1, as defined by ASHRAE Standard 62.1	Prerequisite	Minimum Indoor Air Quality Performance
	2. Comply with air cleaning efficiency and byproduct generation requirements 3. Comply with ASHRAE 62.1-2022 section 4,5,6.5,7 4. Perform Indoor Air Quality Procedure Verification per tables 7.1, 7.2, 7.3 and section 7.3.1.1 in ASHRAE 62.1-2022	2	Innovation

Option 2: Contaminant-based Enhanced IAQ Design

The table below shows points that can be earned by exceeding the ASHRAE minimums defined in Option 1.

BD+C Credit	Requirements	Points	Awarded Credit
Minimum indoor air quality performance: IAQP compliance path	Comply with the requirements of Option 1	Prerequisite	Minimum Indoor Air Quality Performance
		2	Innovation
	Design and test for PM2.5, Formaldehyde, and Ozone using Table 2.	1	EQc Enhanced IAQ Strategies

Earn up to 6 Points for Optimized Energy Performance

SVT can also contribute to earning up to 6 additional points for new construction through energy simulations and referencing the design guide in the Energy & Atmosphere credit area.

BD+C Credit	Requirements	Points	Awarded Credit
Energy and Atmosphere	Demonstrate increased energy efficiency	up to 6	Optimize Energy Performance

Table 1: Design targets for acceptable indoor air quality (from ASHRAE Standard 62.1-2022, Table 6-5)

DESIGN COMPOUND OR PM2.5	CAS NUMBER	COGNIZANT AUTHORITY	DESIGN LIMIT
ACETALDEHYDE	75-70-0	Cal EPA CREL (June 2016)	140 µg/m³
ACETONE	67-64-1	AgBB LCI	1200 µg/m³
BENZENE	71-43-2	Cal EPA CREL (June 2016)	3 µg/m³
DICHLOROMETHANE	75-09-2	Cal EPA CREL (June 2016)	400 µg/m³
FORMALDEHYDE	50-00-0	Cal EPA 8-hour REL (2004)	33 µg/m³
NAPHTHALENE	91-20-3	Cal EPA CREL (June 2016)	9 µg/m³
PHENOL	108-95-2	AgBB LCI	10 µg/m³
TETRACHLOROETHYLENE	127-18-4	Cal EPA CREL (June 2016)	35 µg/m³
TOLUENE	108-88-3	Cal EPA CREL (June 2016)	300 µg/m³
1,1,1-TRICHLOROETHANE	71-55-6	Cal EPA CREL (June 2016)	1000 µg/m³
XYLENE, TOTAL	108-83-3, 95-47-6, and 106-42-3	AgBB LCI	500 µg/m³
CARBON MONOXIDE	630-08-0	USEPA NAAQS	9 ppm
PM2.5	–	USEPA NAAQS (annual mean)	12 µg/m³
OZONE	10028-15-6	USEPA NAAQS	70 ppb or 137 µg/m³
AMMONIA (FOR SPACES WITH ANIMALS)	7664-41-7	Cal EPA CREL (June 2016)	200 ug/m³

Table 2: Design targets for enhanced indoor air quality

DESIGN COMPOUND OR PM2.5	CAS NUMBER	COGNIZANT AUTHORITY	DESIGN LIMIT
FORMALDEHYDE	50-00-0	NIOSH (2016)	20 µg/m³
PM2.5	–	USEPA NAAQS (annual mean)	10 µg/m³
OZONE	10028-15-6	USEPA NAAQS	10 ppb

enVerid Systems' award-winning Sorbent Ventilation Technology® (SVT®) reduces the cost and carbon emissions of heating, ventilating, and air conditioning commercial buildings and increases their resiliency to polluted outside air. SVT delivers these benefits by filtering harmful contaminants from indoor air so that indoor air quality can be maintained with less outside air ventilation, which is energy intensive and expensive to condition and may be polluted. Reducing outside air requirements enables building owners to install smaller, less expensive HVAC systems that use less energy and to operate existing HVAC systems more energy efficiently. SVT is available in systems sold by leading HVAC manufacturers such as Daikin and Oxygen8 and in enVerid's HVAC Load Reduction® (HLR®) modules, which can be easily integrated with HVAC systems from any manufacturer. Over 1,000 HVAC systems with SVT have been designed into commercial, academic, and government buildings globally over the past ten years in full compliance with ASHRAE Standard 62.1 and the International Mechanical Code. SVT can also be used to earn LEED and WELL points. For more information, visit enverid.com.