Katie Bricker Photography

WELLness
Promoting well-being through design

SKYFOLD®
dormakaba Group

Skyfold's Guide to WELL™

Skyfold and the dormakaba Group are committed to helping architects and interior designers create more sustainable buildings and spaces where people and the community can thrive. For this reason, Skyfold has compiled a guide to explain how its movable walls can contribute points in three WELL™ concepts for your building or space's WELL™ Certification as per IWBI's WELL Building Standard™. These three concepts are Light, Materials and Sound.

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Sound

We are the acoustic leader in vertically folding retractable walls. When deployed, Skyfold becomes a decoupled double, ridgid wall and acoustic barrier with acoustic ratings of up to STC 60 (Rw 59 dB) and NRC/SAC of up to 0.65.

Light

Light is fundamental for space and essential for human well-being and it is the success of any building. Natural daylight is irreplaceable and achievable with Skyfold's Mirage®. Integrating daylight with Skyfold's Mirage® and electric light with Skyfold's Classic™ and Zenith® to create lighting strategies focused on human health, along with traditional requirements for visual acuity and comfort, lead to healthier and more productive environments.

Materials

Materials matter. Skyfold is committed to promoting better and more sustainable buildings with the highest indoor environmental quality. Our commitment extends not only to the products we make, but also to our operations and manufacturing techniques used in our facilities.

Sound

Category	Points	Overview	Sub-category	Features & Applicability	Reference	Pending	Verification
S01	Pre-condition (P)	Sound Mapping	Manage Acoustical Privacy	With sound ratings ranging from STC 33 (Rw 33 dB) to STC 60 (Rw 59 dB) for the entire Skyfold system, acoustical privacy can be managed between sub-divided spaces according to varying noise concerns.	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
S02	3	Maximum Noise Levels	Limit back-ground Noise Levels	High sound ratings of Skyfold walls contribute to low sound pressure levels (SPL)	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
S03	2	Sound Barriers	Ensure Adequate Wall Construc-tion	High sound ratings of Skyfold walls contribute to SPP rating for office spaces and exceeds IWBI's minimum STC requirement for classrooms/dwelling units of all types	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
	1		Sound Barriers	Sound ratings of Skyfold walls exceed IWBI's minimum required of STC 30 by employing innova-tive gaskets and automated seals to improve acoustic comfort and performance	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
S04	1	Sound Absorption	Reverberation Time	Optional perforated panels (NRC) on Skyfold walls contribute to low RT rating	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
	1		Sound Reducing Vertical Surfaces	Optional perforated panels (NRC) meet IWBI's minimum requirements for enclosed offices, dining spaces, conference rooms and classrooms.	Skyfold Design Spec.		Sound Performance Test ASTM E90 & C423 / ISO 140-3 & 354
S05	2	Sound Masking	Sound Masking	Skyfold walls' high STC contribute to sound masking implementation.	Skyfold Design Spec.		Sound Performance Test NRC / ASTM E90

Applicable Skyfold Models :
Classic™ I Zenith® I Zenith® Premium I Mirage®

References:
1. Skyfold Design Specifications for each product in the "**Specifications**" section of the Resources on Skyfold's website
2. Sound Performance Tests for each product in the "**Test Reports**" section of the Resources on Skyfold's website

Light

Category	Points	Overview	Sub-category	Features & Applicability	Reference	Pending	Verification
L03	3	Circadian Lighting Design	Lighting for the Circadian Systems	Optional LED lights on Skyfold walls contribute to the achievement of optimal light levels for all spaces	N/A		On-Site Assessment (Performance Test)
L04	2	Glare Control	Manage Glare from Electric Lighting	Optional LED lighting on Skyfold walls meets the WELL™ requirement for regularly occupied spaces	IMTRA Product Catalog		IMTRA Design Spec.
L05	1	Enhanced Daylight Access	Enhanced Daylight Plan	Skyfold Mirage's acoustic glass panels integrate natural light into an indoor flexible space environment when installed within 7.5 m (25 ft) of workstations	N/A		Skyfold Architectural Drawing
	1		Ensure Views	Skyfold Mirage's acoustic glass panels ensures access to views while sub-dividing space	N/A		Skyfold Architectural Drawing
L06	1	Visual Balance	Manage Brightness	Optional LED lights on Skyfold walls create a visually comfortable lighting environment for all spaces	N/A		Skyfold Architectural Drawing
L07	1	Electric Light Quality	Ensure Color Rendering Quality	Optional LED lights on Skyfold walls meet the IWBI color rendering index (CRI) requirement of 80+ for all circulating areas	IMTRA Product Catalog		IMTRA Product Catalog
	1		Manage Flicker	Optional LED lights on Skyfold walls meet IWBI's minimum flicker frequency	IMTRA Product Catalog		IMTRA Product Catalog
L08	1	Occupant Control of Lighting Environments	Enhance Occupant Controllability	Optional LED lights on Skyfold walls are tunable (dimmable) to provide occupants with control over light levels and supplemental lighting.	IMTRA Product Catalog		Skyfold Dimming Controls / Touch Screen

Applicable Skyfold Models :
Classic™ I Zenith® I Zenith® Premium I Mirage®

References:
1. IMTRA: "**Marine Lighting Product Catalog**", www.imtra.com/product-catalogs.htm
2. Mirage® Architectural Drawing: **Generic Drawing Details – Mirage.pdf**, from "Room Design" section of the Resources on Skyfold's website

Materials

Category	Points	Overview	Sub-category	Features & Applicability	Reference	Pending	Verification
X01-X03	Pre-condition (P)	Fundamental Material Precautions	Restrict Asbestos / Limit Mercury / Restrict Lead	Skyfold walls do not contain traces of asbestos, mercury or lead	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
		Hazardous Material Abatement	Manage Asbestos / Lead, PCBs	Skyfold walls do not contain traces of asbestos, lead or PCBs	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
X04	1	Waste Management	Manage Hazardous Waste	Skyfold walls do not contain hazardous material	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
X05	2	In-Place Management	Manage Hazardous Materials	Skyfold walls do not contain traces of asbestos or lead	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
X08	1	Hazardous Material Reduction	Limit Hazmat	Skyfold walls contain less than 100 ppm or no trace of Mercury, Cadmium, Antimony, Chromium-6	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
X10	3	Volatile Compound Reduction	VOCs	Skyfold walls do not contain traces of HFR, added formaldehyde or phthalates, and they emit zero VOC.	HPD/EPD		Self-Declared HPD, Third-Party Verified EPD
X11	3	Long-Term Emission Control	Emissions (Furniture)	Skyfold walls are self-declared Zero VOC; however, emissions control testing has not been documented yet	CDPH	x	CDPH Emissions testing required
X12	3	Short-Term Emission Control	Emissions (Wet-applied)	Skyfold walls are self-declared Zero VOC; however, emissions control testing has not been documented yet	CDPH	x	CDPH Emissions testing required
X13	2	Enhanced Material Precaution	Select Optimized Materials	Declare Label/C2C for Skyfold walls required for this sub-category are pending	Declare Label	x	Declare Label pending
X14	2	Material Transparency	Promote Ingredient Disclosure	Skyfold's Health-related Product Declaration (HPD) discloses 100% of the ingredients used to produce Skyfold walls	HPD		Self-Declared HPD, Third-Party Verified EPD

Applicable Skyfold Models :
Classic™ I Zenith® I Zenith® Premium I Mirage®

References:
1. HPD reports for each product in the "**Sustainability**" section of the Resources on Skyfold's website
2. EPD reports for each product in the "**Sustainability**" section of the Resources on Skyfold's website
3. Declare Label: "**dormakaba's Quick Guide to Health-Related Product Declaration (HPD)**," from the "Sustainability" section of the Resources on Skyfold's website
4. CDPH: California Department of Public Health, **https://www.cdph.ca.gov/**

1. **What is WELL™?**

   WELL™, or WELL Building Standard™, is an internationally recognized standard by the International Well Building Institute (IWBI). WELL™ measures how a building or space promotes the wellbeing and wellness of its occupants by using a holistic view on human health. A "Standard" outlines specific concepts, features, optimizations, and preconditions for a building or space to be considered WELL Certified. By meeting these requirements, a building or space can earn points towards WELL Certification.

   Corporate, commercial, or residential buildings and spaces can seek WELL Certification. The programs are created by drawing from a community of users and practitioners as well as from health and building researchers and experts around the world.

2. **Are Skyfold materials and systems WELL™ Certified?**

   WELL Certification is for buildings and spaces only, not building/interior materials or products; however, Skyfold products and solutions may help a space or building qualify for specific categories and concepts through points recognition.

3. **Which WELL™ Building Standard is Skyfold using in its guide?**

   Skyfold's Guide to WELLness follows the WELL v2™ Pilot standard. Skyfold cannot guarantee the use of its products will make it more likely to attain certification.

4. **What is WELL v2™?**

   WELL v2™ is IWBI's most recent version of the WELL Building Standard™ designed to accommodate diverse space types and geographies and to respond to new evidence and ever-evolving public health concerns. WELL v2™ looks at the following ten concepts: Air, Water, Nourishment, Light, Movement, Thermal Comfort, Sound, Materials, Mind and Community. In comparison, WELL v1 only looks at seven concepts.

5. **What concepts from WELL v2™ apply to Skyfold?**

   Skyfold products and solutions may contribute to three of the ten WELL v2 concepts: Sound, Materials and Light. The degree to which Skyfold can contribute points to the concepts and categories may vary based on the Skyfold model and optional features selected. See Skyfold's Guide to WELLness for more details.

6. **What is Skyfold's Guide to WELLness?**

   This guide indicates Skyfold's applicability to some of the concepts within the WELL v2 standard for which you can potentially earn points towards WELL Certification. All applicable justifications and resources have been suggested in the guide. The guide does not account for all ten concepts, the features, and the categories in the WELL v2 standard.

7. **How did you determine which concepts and categories apply to Skyfold?**

   A team of Skyfold engineers reviewed each concept, category, and precondition outlined in the WELL v2 standard and used tools, such as Skyfold's Environmental Product Declarations and Health-related Product Declaration, sound performance tests, as well as Skyfold's evolving Red List and third-party supplier data.

8. **I'm seeking WELL™ certification for a space and/or building, how can I support my claims that Skyfold vertically retracting walls can contribute to WELL™ points?**

   Within Skyfold's Guide to WELLness, we have included where you can find reference material to support these claims. Some of these references are from Skyfold, others are from third-party verifiers or suppliers.

9. Why do some of the categories within Skyfold's Guide to WELLness have a pending status?

To demonstrate transparency, we have decided to include in the guide some categories and sub-categories for which we are currently investigating Skyfold's applicability. In some cases, we are in the process of completing pre-conditions mandated by WELL™ or we are waiting for further resources from a supplier.

10. What are Environmental Product Declarations?

Environmental Product Declaration, or EPD, is a summary report of a product's environmental performance based on Life Cycle Assessment (LCA), a scientific process which examines the environmental impacts associated with all stages of a product's life, from raw material extraction through processing, manufacture, distribution, use, repair/maintenance, to end of life (disposal or recycling). EPDs are prepared in accordance with international ISO standards as part of SCS Global Services' EPD Program. Skyfold's EPDs were prepared by SCS Global Services, verified by a third party and then listed on SCS' Certified Green Products Guide. All Skyfold products are EPD verified.

11. What is the Health-related Product Declaration? **

Health-related Product Declaration, or HPD, is a product declaration which shows detailed listings of materials and contents of a given building product and its related effects on human health. HPDs were developed by HPD Collaborative to appraise potential health hazards of materials. HPDs are self-declared. HPD reports have been prepared for all Skyfold products.

For more information:

WELL™ Website: **https://www.wellcertified.com/**

WELL v2™ Standard & Overview: **https://v2.wellcertified.com/v/en/concepts**

Skyfold Sustainability Tools: **https://skyfold.com/en-US/resources#design-tips**

** Skyfold is the world leader in acoustic vertical retractable walls. Our wall systems are completely electric and provide superior acoustics. With a simple keypad operation, a room can be quickly and quietly reconfigured to provide the user with tremendous space flexibility. Skyfold is committed to promoting environmentally mindful buildings through use of sustainable materials within our products and the sustainable processes used within our facilities. For more information, please go to: www.skyfold.com. Skyfold is part of the dormakaba Group. The information contained in this Guide is to be used only as a voluntary information on our products. dormakaba makes no representation or warranty as to the use of or reliance on the WELL Building Standard, the Health Product Declaration, or completeness or accuracy of any of the information contained herein. The products and specifications set forth in this Guide are subject to change without notice and dormakaba disclaims any and all liability for such changes. The information contained herein is provided without warranties of any kind, either express or implied, and dormakaba disclaims any and all liability for typographical, printing, or production errors or changes affecting the specifications contained herein. dormakaba DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL dormakaba BE LIABLE FOR ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES ARISING FROM THE SALE OR USE OF ANY PRODUCT. All sales of products shall be subject to dormakaba's applicable General Terms and Conditions, a copy of which will be provided by your local dormakaba organisation upon request.

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