



HOUSTON GREEN BUILDING RESOURCE CENTER
MARCH 28, 2018

## YOUR NEEDS

Always a time crunch

Demand for current, consistent and correct source of complete product information

Complete sustainability and performance data required for adequate product evaluation and selection

Product information needed within project framework



#### **COMPLEX STAKEHOLDERS AND DEMANDS**

#### Building Performance, **Building Owner** Legal Codes, Fire Safety, Insurer Cost, Health & Environment Fire Safety, Building Performance, Developer Health & Environment, Asset Manager Risk and Cost **Demand Drivers** Building Owner, Architect Stakeholders **Cost Optimization** Designer Tenants/Occupants Safety and Security, Engineer Performance, Quality, Specifier and Codes Health & Environment. **Building Occupants** Tenants/Occupants **Tenants** Safety/Security Eco Awareness. **General Contractor** Health & Environment, Cost, Regulation, **Sub Contractor** Code, Building Performance Safety and Health, **Regulatory Authorities Government Agencies** Sustainability Government Agencies, Manufacturer & Regulations, Mfgr Reps Codes & Compliance, Health & Environment.

Cost. Performance



# **LOW-EMITTING PRODUCTS**







**Eye Irritation** 

Headache

**Upper Respiratory Irritation** 

Nausea

**Dizziness** 

**Fatigue** 

**Sore or Dry Throat** 

**Nosebleed** 



## Every day in the U.S.:

**40,000** people miss work due to asthma

**30,000** people suffer asthma attacks

**5,000** people visit the ER due to a severe asthma attack

(AsthmaMD Inc.)



## SO WHY IS IAQ IMPORTANT

\$63 B/year loss from lost productivity and increased healthcare costs.

(National Energy Management Institute, 2010)

.5M out of 4.5M U.S. commercial buildings have unacceptable IAQ affecting 55M workers.
(U.S. EPA and NEMI 2010)



#### **VOC EMISSIONS**

**LEED** EQc Low-Emitting Interiors – content and emissions for wet products; furniture emission given different levels of credit

WELL Feature 04: VOC Reduction (P) need low-emitting building products that meet
CDPH/EHLB/Standard Method v1.1 (1.2 now) in areas such
as flooring, paints, adhesives, insulation, gypsum board,
ceiling tiles; either or content or emissions for wet products;
furniture required to meet almost same levels

**Fitwel** – 6.3 Adopt and Implement an IAQ Policy for the Workplace; includes products and other air quality measures

# ASHRAE 189.1 and IgCC, all have requirements for low-emitting products and air quality measures





## **CHEMICAL TRANSPARENCY**



Carcinogenic and endocrine disrupting pesticides were detected in more than **50**% of those tested.

Fire retardant chemicals (PBDEs) were in the serum of nearly all people sampled.

BPA was found in ~100% of urine samples: females had higher levels than men; children had the highest levels.

CDC's Fourth National Report on Human Exposure to Environmental Chemicals, 2017





According to the U.S. EPA, about 90% of U.S. chemicals are exempt from federal review under the Toxic Substances Control Act.

The EPA only has data for 200 of the thousands of chemicals that are on the market.

Only **5** of the **20,000** chemicals introduced since 1976 are banned by the EPA.

(Environment and Human Health, Inc. Report, Wargo, 2010

The five chemicals that are banned are: PCBs, chlorofluorocarbons, dioxin, asbestos, and hexavalent chromium.



30+ top design firms issued open letters to manufacturers

DEMANDING disclosure of chemical ingredients.



# **LEED v4**

launched and included a credit <u>REQUIRING</u> chemical disclosure:

MR Credit: Building Product Disclosure and Optimization -Material Ingredients



71% of projects valued at \$50 million and over reference LEED in project specifications

McGraw Hill Construction (2010)



#### MATERIAL INGREDIENTS

**LEED** MRc Building Product Disclosure and Optimization: Material Ingredients Option 1 - 20 products from 5 different manufacturers that have publicly available inventory of content down to at least 1000 ppm or HPD, Cradle to Cradle, Declare, Product Lens, or credits in some multi-attribute standard

**WELL** Feature 97: Material Transparency Part 1 - at least 50% (by cost) of interior finishes, finish materials, furnishings, and built-in furniture have been evaluated and disclosed down to 1000 ppm through HPD, Cradle to Cradle, Declare, Product Lens, or credits in some multi-attribute standard

Not in Fitwel or Green Codes currently





## **ENVIRONMENTAL IMPACT - EPDS**









...but WTH environmental product declarations, comparing life cycle assessments is like comparing...

instructions & guidelines allow for more consistent EPD outputs of products in the same category



Program
Operator and
PCR
Committee
Selection

Committee drafting/ updating of PCR

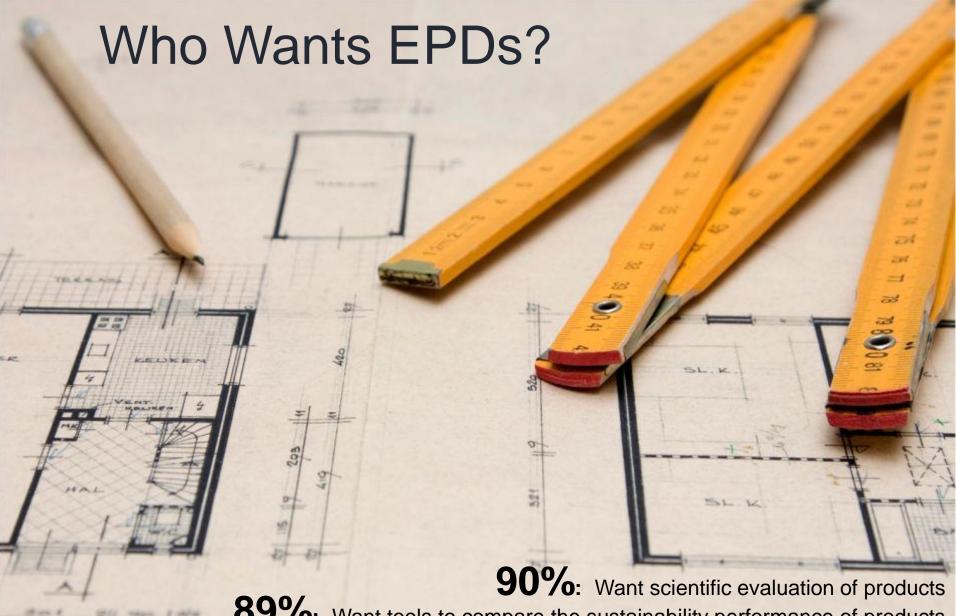
Open public comment and revisions

Respond to comments and revise PCR as needed Expert Panel PCR review (if needed for update)

Publication of the approved PCR

# **Environmental Impacts**





89%: Want tools to compare the sustainability performance of products Want access to specific sustainability performance required to achieve certification

# North America...

# **Building Industry LEED® v4 Materials & Resources Credit**

- Gives credit to LEED project teams that specify certified products with accompanying EPDs
- Optimization credit available when demonstrating reduction in impacts

## **Buy Clean California Act (AB 262)**

 Will require bidders to submit EPDs and products must be within maximum acceptable GPW for each category of materials

# Consumer Packaged Goods & Appliances

- Federal Procurement Guidelines for Product Environmental Performance Standards and Ecolabels for Voluntary Use (2014)
- Retailers are starting to ask about product environmental footprints on specification forms (e.g. Walmart Supplier Scorecard)

# North American Building Industry EPD Demand Drivers

- LEED v4 Materials & Resources Credit, Option 1
  - Gives credit to LEED project teams that specify certified products with accompanying EPDs
  - Optimization credit available when demonstrating reduction in impacts
- Green Globes
- CHPS (Collaborative for High Performance Schools, credit MW7.1)
- ASHRAE Standard 189.1
- 2018 International Green Construction Code (IgCC)
- 2014 GSA Facilities Standards for Public Buildings
- 2012 NAHB National Green Building Standard



# EPDs and Ecolabels Work Together

# **TRANSPARENCY**



# **ACHIEVEMENT**

TYPE III LABEL TRANSPARENCY + TYPE I LABEL ACHIEVEMENT = MORE SUSTAINABLE DECISION-MAKING

#### ENVIRONMENTAL PRODUCT (DECLARATED)

#### EASI-LITE LIGHTWEIGHT GYPSUM BOARD

FOR CERTAINTEED CYTSUM MANUFACTURING FACILITIES BASED AT: CARROLLTON, KENTUCKY MOUNDSVILLE, WIST VIRGINIA BOXBORD, NORTH CARDUNA





#### The Earl-Lite' Advantage:

- Up to 90% lighter easy to lift, carry and install, which results in faster installation.
- For wall and celling applications up to 26" (KD) mm) i.e.
- Uniform high-strength, sag resistant gypsum sine with 100% registed face and back paper
- + Scores and shape with less dust
- CREENCURED\* Gold Certified
- Solid, Strong edge handness Tapered edges for perfect Joints

## CertainTeed

Gypsum

Antidesia, vertication and manufacturers continue to look for skeye to reduce our industry's bessert. on the embedment while meeting. studence demand for products that deliver beauty, control and percenance, Certainfeed Sypours. The leader to investible dryeat. and performance well-cents. has the products to make your preparts had blac epistar and more comfortable, for collegand malbeard, we effer products that contribute to believe air quality. grouptics, the resistance, melatare and round resistance, recycled coldant, regional metallish and by analise its stealign exects, as well. as count simally, australia and surfaceability of a building.

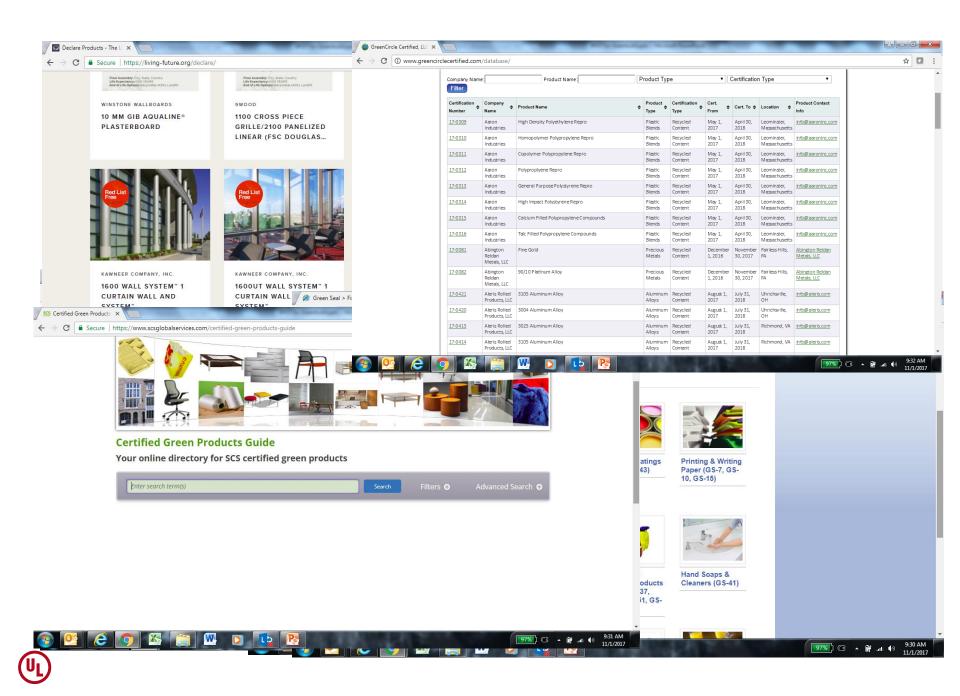
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# Say Hello to the EPD

GOOD LLC. All Tayon Tonores





#### INTRODUCING SPOT



**UL.COM/SPOT** 

Featuring more than 45,000 products

MasterFormat product coding

AutoDesk® Revit Add-in Launching 2017

App available from Apple Store and Google Play

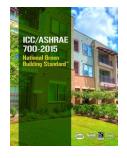
Search by Sustainable Building Credits







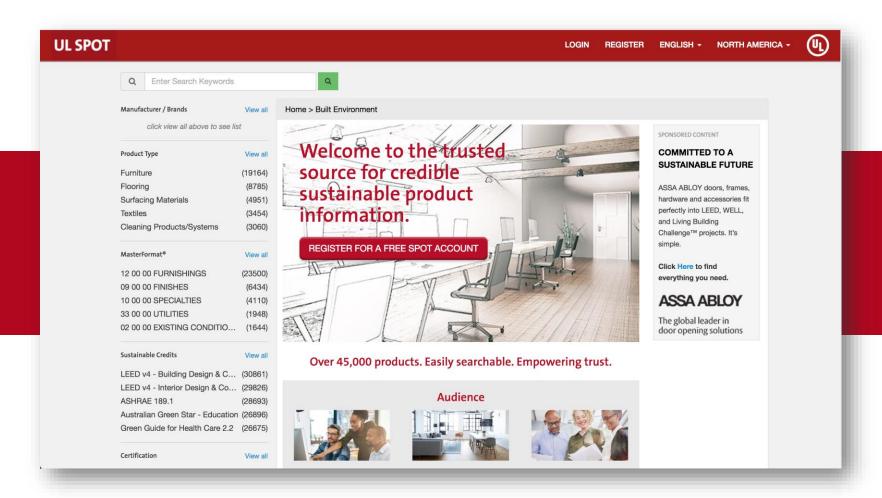








## INTRODUCING SPOT – HOMEPAGE – UL.COM/SPOT





# UL SPOT

Q Enter Search Keywords

Manufacturer / Brands

View all

click view all above to see list

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(19314)
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Company Statements

Transparency (26)

UniFormat View all

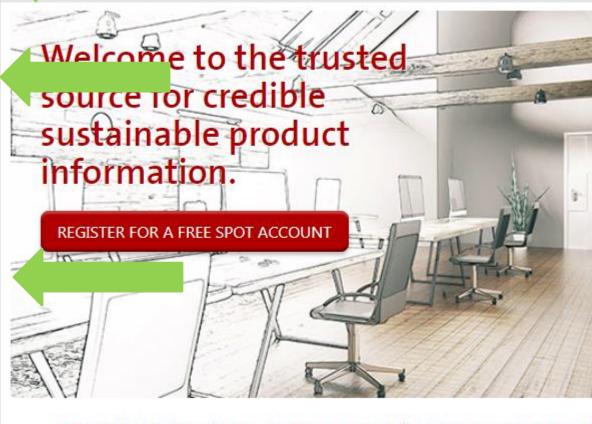
E Equipment & Furnishings (20280)

C Interiors (9798)

D Services (1013)

B Shell (148)

A Substructure (92)



Over 45,000 products. Easily searchable. Empowering trust

**Audience** 







Certification

GREENGUARD Certification

ECOLOGO Certification

Standard Number

GREENGUARD Gold Certification

Environmental Product Declarati...

Recycled Content - Claim Valida...

UL 2818 - 2013 Standard for Ch... (42906)

Secure https://spot.ulprospector.com/en/na/BuiltEnvironment

View all

(43203)

(32769)

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(771)

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View all

MasterFormat®	View al
12 00 00 FURNISHINGS	(26009
09 00 00 FINISHES	(7286
10 00 00 SPECIALTIES	(4418)
33 00 00 UTILITIES	(2049)
02 00 00 EXISTING CONDITIONS	(1740)
Sustainable Credits	View al
LEED v4 - Building Design & Co	(31168
LEED v4 - Interior Design & Con	(30257
ASHRAE 189.1	(28769)
Australian Green Star - Education	(27126
	(27 220)
Green Guide for Health Care 2.2	



#### Architects & Designers

SPOT facilitates the selection of credible green products, nabling the design community ne Building Information Modeling (BIM) workflow.

#### Audience



#### Manufacturers

As a manufacturer, the key to targeting purchasers and specifiers who are specifying green products is the ability to showcase your sustainable product attributes by certification, sustainable credit and more.



#### **Purchasers**

Whether you're searching building materials or clear products, SPOT has credib complete sustainability information all in a single tool.

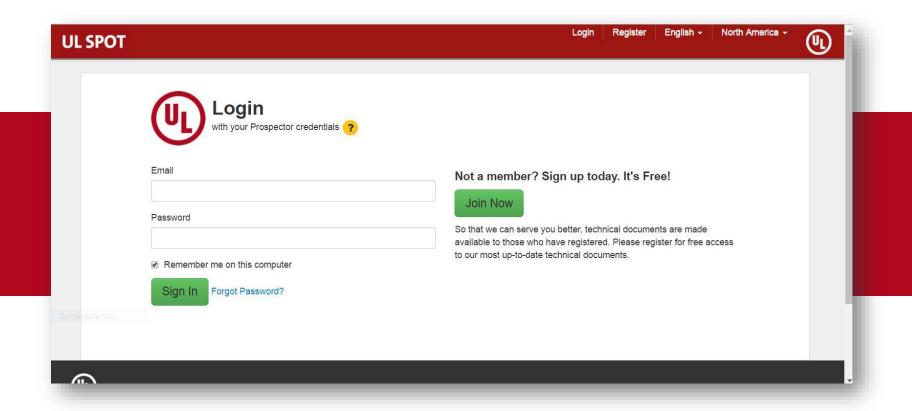
#### SPOT for Revit<sup>™</sup> Now Available.

Are you a BIM project user? The SPOT app for Revit<sup>™</sup> provides unprecedented visibilit into trusted green product information, enabling greater accuracy in green building reporting and certification to regional, national and international building standards.

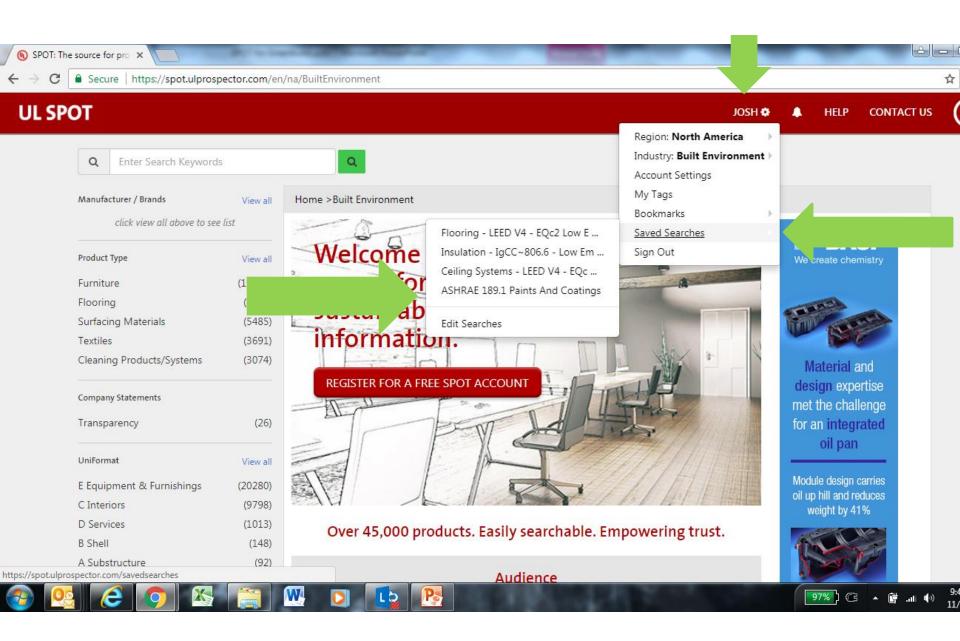
Download the add-in and sign up for updates about the SPOT add-in for Revit™.

#### et Us Show You What SPOT Can Do

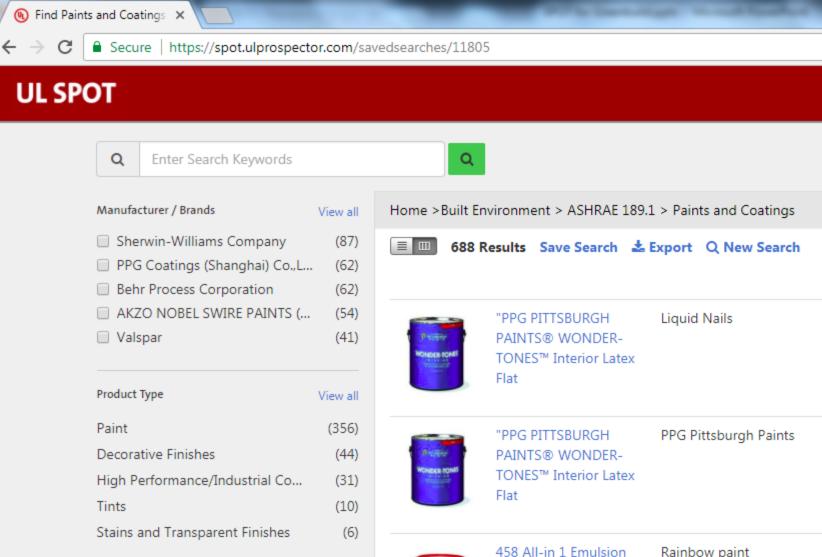
## **INTRODUCING SPOT - LOGIN**













UniFormat

C Interiors

MasterFormat®

09 00 00 FINISHES

Rainbow paint

NO.458 ALL-in-1 Em flavors and matte sh dining rooms, bedro scrubbable, mildew

This high-quality pa

surfaces like walls, tr

masonry, primed me provides a more was

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This high-quality pa

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hide su...view more



Paint

Speedhide Interior L 6-2 SPEEDHIDE® **PPG Paints** Interior Latex Sealer alkyd or latex finish Quick-Drying semigloss finishes. T





Manufacturer Keywords:

Paint Latex Flat Interior sherwin

#### Categories

#### **UniFormat Categories**

 C Interiors ~ C30 Interior Finishes ~ C3010 Wall Finishes ~ C3010100 Wall Finishes ~ C3010110 W Finishes - Paint

#### **Standard Number Categories**

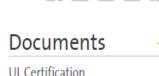
- UL 2818 2013 Standard for Chemical Emissions Building Materials, Finishes and Furnishings
- UL 2818 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings

#### **Product Type Categories**

· Paints and Coatings ~ Paint ~ Interior Architectur

#### **Sustainable Credits Categories**

- WELL ~ WELL Feature 4 : Part 1
- LEED v4 Interior Design & Construction ~ EQ Credit 4: Indoor Air Quality Assessment - Option : Air Testina
- LEED v4 Interior Design & Construction ~ EQ Credit 2: Low-Emitting Materials
- LEED v4 Interior Design & Construction ~ EQ Credit 1 - Enhanced Indoor Air Quality Strategies-Option 2D
- International Green Construction Code ~ A108.5



GREENGUARD Certification 14047-410

Share: f G in P

GREENGUARD Gold Certification 14047-420

Product Lens (ProMar 200 Zero VOC Interior Latex Flat B30-2600 Series) 14047-4500

Datasheet

Product Lens 14047-4500

Specification Sheet

ProMar 200 Zero VOC Interior Latex Flat B30-2600 Series

Brochure

ProMar 200 Zero VOC

MSDS / SDS

MSDS / SDS

Certification Statement



ProMar 200 Zero VOC Interior Latex Flat B30-2600 Series Environmental Product Declaration







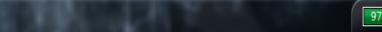














## **PARTNERS**











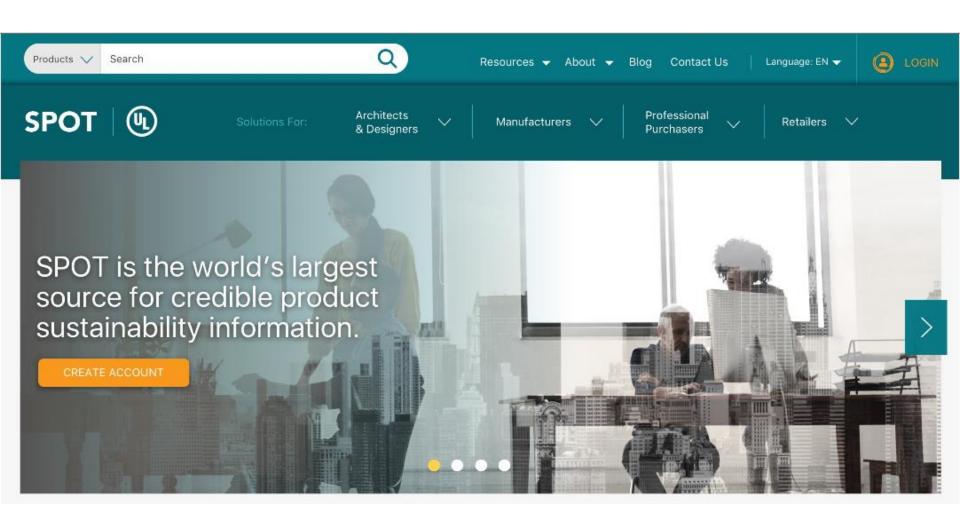


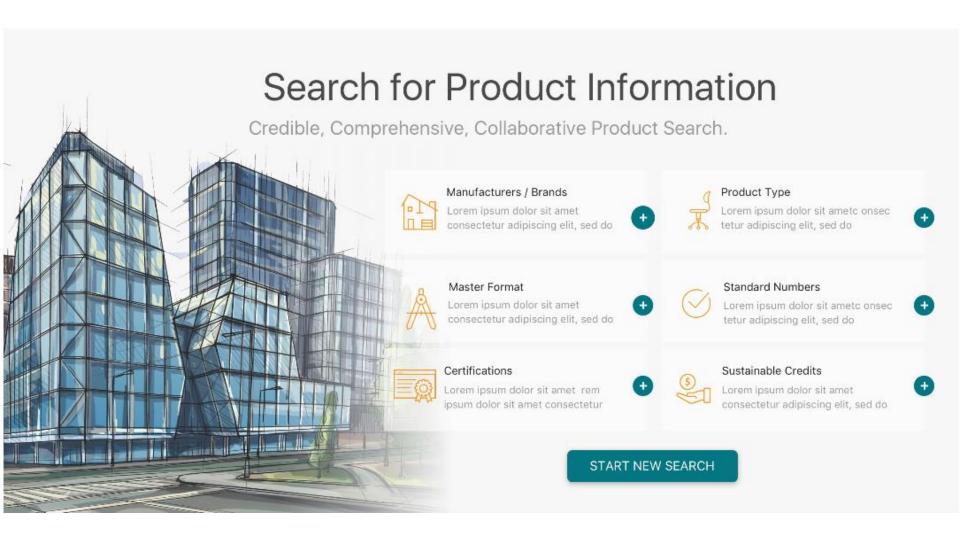






# SPOT Homepage









#### My Projects



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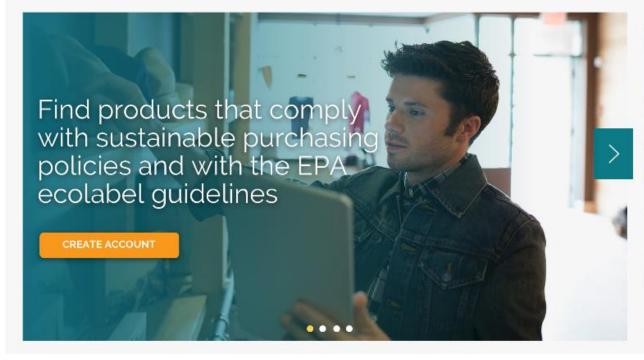


Architects & Designers

Manufacturers

Professional Purchasers

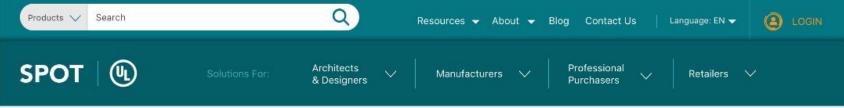
Retailers V



# GENERATE | AFFORDABLE YOUR OWN ENERGY SolarCity Act Now







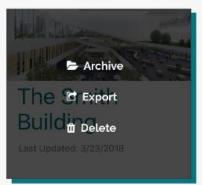


#### **Current Projects**











MY PROJECTS

#### **UMass Lowel Library**







Manufacturer/Brands

Product Types Master Format

Sustainable Credits

Certification

Standard Number

+ Add Photo

Saved V Search







**Product Name** 

**Product Name** 

Product Name

**Product Name** 

## If you have any questions, please visit:

# UL.com/SPOT...

Or contact me:
Josh Jacobs
Josh.l.jacobs@ul.com
678-559-8848









