



ULTIMATE GUIDE TO LEED V4 & V4.1

MRc3: **Sourcing of Raw Materials**

A Resource Guide for General Contractors

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Earning MRc3 Sourcing of Raw Materials in LEED v4.1

Earning this point could be a steel!

Sourcing of Raw Materials is a streamlined, more achievable version of the LEED v4 credit. The v4 credit had an unachievable Option 1 (for corporate sustainability reporting), and a 2nd option that required 25% of products by cost to meet a variety of environmental metrics. However, it limited the ability of structural and envelope products to comply.

The newly rewritten v4.1 Sourcing of Raw Materials focuses solely on the leadership extraction practices, eliminates the cap on structure and enclosure, and reduces the threshold for earning the point. A second point is also available if you are really hitting it out of the park.

The good news? This credit is now pretty achievable. It tends to be easier on new construction projects, but plenty of interiors projects are navigating this as well.



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REQUIREMENTS



Requirements for MRc3 for LEED v4.1

There are 2 points available under sourcing of raw materials under v4.1.

For 1 point, you need to use products sourced from at least three different manufacturers that meet at least one of the responsible sourcing and extraction criteria we'll talk about for at least 15%, by cost, of the total value of permanently installed building products in the project **(1 point)**.

To earn the 2nd point, you need to use products sourced from at least five different manufacturers that meet at least one of the responsible sourcing and extraction criteria below for at least 30%, by cost of the total value of permanently installed building products in the project **(2 points)**.

- Extended Producer Responsibility (valued at 50% by cost)
- Biobased Products
- Wood Products
- Material Reuse (valued at 200% by cost)
- Recycled Content

There you go - a menu of options that all wrap up in aggregate the need to be at least 15% of total material cost Divisions 3-10 for one point, or 30% for two points.

How do I earn points for Sourcing of Raw Materials?

Of all of the BPDO credits, Sourcing of Raw Materials may be most understood, as almost all the compliance paths are interactions of older versions of LEED. Good old recycled content (counting the same as post-consumer % + ½ pre-consumer), FSC wood, material reuse - the band is back together! Biobased products has replaced rapidly renewable, and new to the game (for v4 and 4.1) is extended producer responsibility. All of those attributes add up in one bucket in your quest to 15% by cost.

What is extended producer responsibility?

Extended producer responsibility (EPR) is commonly known as a takeback program, or closed loop program. In short, when an installed product's useful life is over, the manufacturer will take it back and reprocess it into new products. The most common example is carpet - you change our carpet every few years. When you rip it out, the manufacturer will take it back and turn it into new carpet. Of course there's some additional requirements the project must have - for carpet, the program has to meet NSF/ANSI 140-2007, whatever the hell that is.

Frankly, we don't see too many of these programs - most are flooring or ceiling tiles. Even so, put a pin in this, because it may become useful for you. (Hint, hint).

1-2 Points

STRATEGIES



Strategies for Achieving MRc3 in LEED v4.1

On to the (not so) secret sauce. First, an important note: while this credit can be straightforward to achieve, your project type may dictate your strategy.

New construction projects are going to take a different approach than Commercial Interior projects because new construction tends to benefit greatly from 2 things interior projects lack - Structural Steel and Rebar.

Let's cut to the chase. Out of all the options USGBC provides, recycled content makes up the vast majority of it. In fact, the easiest way to earn this credit is to focus on structural steel, rebar, interior metal studs, and see how far you get. That was always our hunch, so we decided to research it. We surveyed over a dozen Green Badger projects and analyzed how they achieved this point.

These projects represented over \$300,000,000 in Divisions 3-10 materials cost, and resulted in about \$100,000,000 of products that complied with Leadership Extraction Practices. Of that - 85% originated from recycled content! FSC wood only accounted for 7%, and EPR was less than 0.5%. Biobased wasn't found on any of them, and material reuse only came up once (but in a big way - more on that in a bit).

This is a small sample size, but recycled content is clearly where you'll want to focus, especially for new construction.

What to focus on for SRM for New Construction Projects

As mentioned, new construction projects get the significant benefit of lots of steel - structural steel, metal decking, steel joist, interior metal studs and rebar.

In fact, in our study rebar alone made up 25% of the recycled content contributions. Structural steel and all its iterations was the number one option though - 48% of the contribution originated within that category. That totals 73% of all recycled content materials in rebar and structural steel. The rest came from a combination of interior metal studs, doors/hardware, and storefront. Barely 1% comes from flooring, drywall or ceiling tile. If you happen to have a lot of FSC casework or if furniture is part of your project, you can look there as well, but otherwise stick to metal.

Our guidance as always - focus on big-ticket, expensive metal items that we mentioned - structural steel, joist/deck, interior metal studs, doors/hardware and anything FSC certified. Don't sweat the small stuff unless you really need it - that \$128 dollars of recycled content in that gasket is more trouble than it's worth.

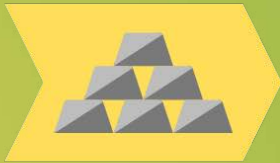
Side note: Many of these products also have EPDs and HPDs. As always, the fewer submittals you can earn these points with, the better!

Survey of Green Badger Projects

Based on \$300,000,000 in Divisions 3-10 materials cost:

- Resulted in about \$100,000,000 of products that complied with Leadership Extraction Practices.
 - Of that - 85% originated from recycled content!
- FSC wood only accounted for 7%
- EPR was less than 0.5%
- Biobased wasn't found on any of them
- Material reuse only came up once

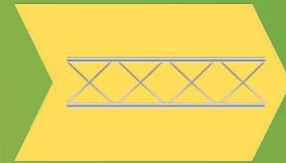
New Construction Projects



Structural Steel



Rebar



Interior Metal Studs



Doors and Hardware



Storefront/Aluminum Glazing Systems



Any FSC wood products

- **Structural Steel:**
 - Recycled Content
 - Steel tube
 - Metal Deck
 - Structural Steel
 - Steel joist
 - Metal Stairs
 - Flats/Plates/Angles
 - **Rebar**
 - Recycled Content
 - Reinforcing bar
 - Reinforcing wire
 - **Interior Metal Studs**
 - Recycled content
 - **Doors and Hardware**
 - **Storefront/Aluminum Glazing Systems**
 - Recycled Content
 - **Any FSC wood products**
- If those don't get you to the 20% goal:**
- Drywall
 - Ceilings/Grid
 - Insulation
 - Flooring



Source: Canva

What to focus on for SRM for Commercial Interiors Projects

Well hot damn, my interior project doesn't have any of that glorious structural steel, nor 1 lick of rebar anywhere to be found. Am I fixen to be hogtied here? A better question would be why did this deep south accent just come about - but bless your heart, we've got options for your commercial interiors project.

Your project may not have all that expensive steel, but it also has much a smaller materials costs, so the products you do go after have a much more profound impact.

Some items are still important - interior metal studs and doors and hardware being two big categories that will also be on CI projects. But here's where other product types start to play a much larger role. Let's start with flooring.

You may recall we mentioned most flooring manufacturers have take-back programs and comply with Extended Producer Responsibility - and if you don't, we just told you. Flooring made up 16% of interiors contribution because all the major manufacturers have these programs - which means at least 50% by cost of all that flooring is going to your benefit. Add on that you can compound

with recycled content, and you can be near 100% contributing value of your flooring products, which really starts to move the needle in your favor.

Drywall and ceilings play a more prominent role in interiors projects, accounting for almost 10% of the total contribution.

The secret weapon? Furniture, in two different ways. If you luck into a certain situation, furniture can take care of this whole credit solo. That situation may be rare, but if you're reusing furniture (moving it from an old office location into your new project), it all counts under material reuse, which has a 200% multiplier! We haven't seen it happen too many times, but if you fall into this scenario, you can apply market rates to what new furniture would cost, and then double it for credit compliance. You'll be kicking back your heels in that nice, reused Aeron chair in no time!

Even if you're not reusing it, furniture can play an oversized role in an interiors project budget. The good news is that a lot of chairs, workstations partitions, etc have recycled content and/or FSC wood components, and they will play an overly important role in earning this credit. Throw in FSC or metal casework, and you're set.

Commercial Interiors Projects



Flooring



Insulation



Interior Metal Studs



Ceiling Tiles & Grid



Furniture & Casework



Gypsum Board



Doors & Hardware

Side note: Many of these products also have EPDs and HPDs. As always, the fewer submittals you can earn these points with, the better!

- **Flooring:**
 - Extended Producer Responsibility
 - Interface
 - Shaw
 - Milliken
 - Armstrong
 - Tarkett
- **Interior Metal Studs**
 - Recycled content
- **Insulation**
 - Recycled content
- **Gypsum Board**
 - Recycled Content
- **Doors and Hardware**
 - Recycled content
- **Ceiling Tiles and Grid**
 - Extended producer responsibility
 - Recycled content
- **Furniture and Casework**
 - Reused furniture (200%!)
 - Recycled Content
 - FSC

Recapping the Strategy Roadmap

Depending on project type, there may not be too many items you'll need to track.

Either way, anything metal or FSC wood is a good place to start, and on interiors projects, double up on flooring and furniture where you can. Most of these products will help you earn the EPD/HPD credits as well.

Important Note: Make sure your recycled content information is up to par. Documentation needs to be product specific (and project specific if possible). If you've got a cut sheet from a rebar manufacturer, and they list 10 different mills, make sure you specify which one your steel came from. If your ceiling tile sheet says Up to 73% recycled content! That won't cut it - you need the actual pre and post-consumer recycled content information for your project.

Summary

How to earn points:

- 1 point is achievable for using 15% by cost of compliant products, and a 2nd point is available if you hit 30%, though that is still a tall order.
- Structure or enclosure no longer matters, so focus on big-ticket steel products
- New construction relies heavily on structural steel, rebar, interior metal studs and doors/hardware
- Commercial Interiors projects have a greater emphasis on flooring, drywall, ceilings and furniture

Summary of Strategies



**1-2 points available:
1 point, 15% by cost
2 points, 30% by cost**



**New Construction:
Structural steel, rebar,
interior metal studs and
doors /hardware.**



**Commercial Interiors:
Flooring, drywall, ceilings,
metal studs and furniture.**