

March 31, 2018

## Subject: Living Building Challenge 3.0, Materials, Section 10 Red List

The Living Building Challenge 3.0 published by the International Living Future Institute lists materials and chemicals that must not be contained or added to building materials to be in compliance with this environmental initiative.

## **Red List Materials and Chemicals**

No chemical compounds in the Red List are present in steel, and the elements Cd, Hg and Pb are not intentionally added to the steel in the manufacturing process. The possible presence of Cd, Hg and Pb from the recycled steel used in steel manufacturing cannot be ruled out. However, weight percent values of Cd, Hg and Pb are well below the threshold amounts reported in the RoHS statement (Restriction on Hazardous Substances) that is available on the Optimus Steel website. Our specific response to each of the Red List chemicals with respect to their presence in steel products produced by Optimus Steel is shown in the following table on page 2 of this document:



Element or Chemical Compound	Present or Added to Steel Products	Optimus Statement
Alkylphenols	Not Present	No chemical compounds are present in steel
Asbestos	Not Present	No chemical compounds are present in steel
Bisphenol A (BPA)	Not Present	No chemical compounds are present in steel
Cadmium	Not Added	See RoHS Statement
Chlorinated Polyethylene and Chlorosulfonated Polyethlene	Not Present	No chemical compounds are present in steel
Chlorobenzenes	Not Present	No chemical compounds are present in steel
CFC's and HCFCs	Not Present	No chemical compounds are present in steel
Chloroprene (Neoprene)	Not Present	No chemical compounds are present in steel
Chromium VI	Not Present	No chemical compounds are present in steel
Chlorinated Polyvinyl Chloride (CPVC)	Not Present	No chemical compounds are present in steel
Formaldehyde (added)	Not Present	No chemical compounds are present in steel
Halogenated Flame Retardant's.	Not Present	No chemical compounds are present in steel
Lead	Not Added	See RoHS Statement
Mercury	Not Added	See RoHS Statement
Polychlorinated Biphenyls (PCBs)	Not Present	No chemical compounds are present in steel
Perfluorinated Compounds (PFCs)	Not Present	No chemical compounds are present in steel
Phthalates	Not Present	No chemical compounds are present in steel
Polyvinyl Chloride (PVC)	Not Present	No chemical compounds are present in steel
Polyvinylidene Chloride (PVDC)	Not Present	No chemical compounds are present in steel
Short Chain Chlorinated Parffins	Not Present	No chemical compounds are present in steel
Wood treatments containing Creosote,	Not Present	No chemical compounds are present in steel
Arsenic or Pentachlorophenol		
Volatile Organic Compounds (VOCs) in wet applied products	Not Present	No chemical compounds are present in steel

Sincerely,

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