Reference	MVC-545	Version	2	Status	Candidate
Relationships					
History	Created 15-Dec-09; Promoted to Shared Concept on 11-May-11				
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Document Owner	BLIS Consortium (www.blis-project.org)				

Usage in view definition diagram

- IFC2x3 <Variable Concept>	→	VBL-258 - IFC2x3 Generic Associations	→	VBL-200 - IFC2x3 Generic Material Association	→	VBL-267 - IFC2x3 Material Layer Set	→	ICC-515 Material Layers	→	MVC-545 Material in Material Layer

Instantiation diagram
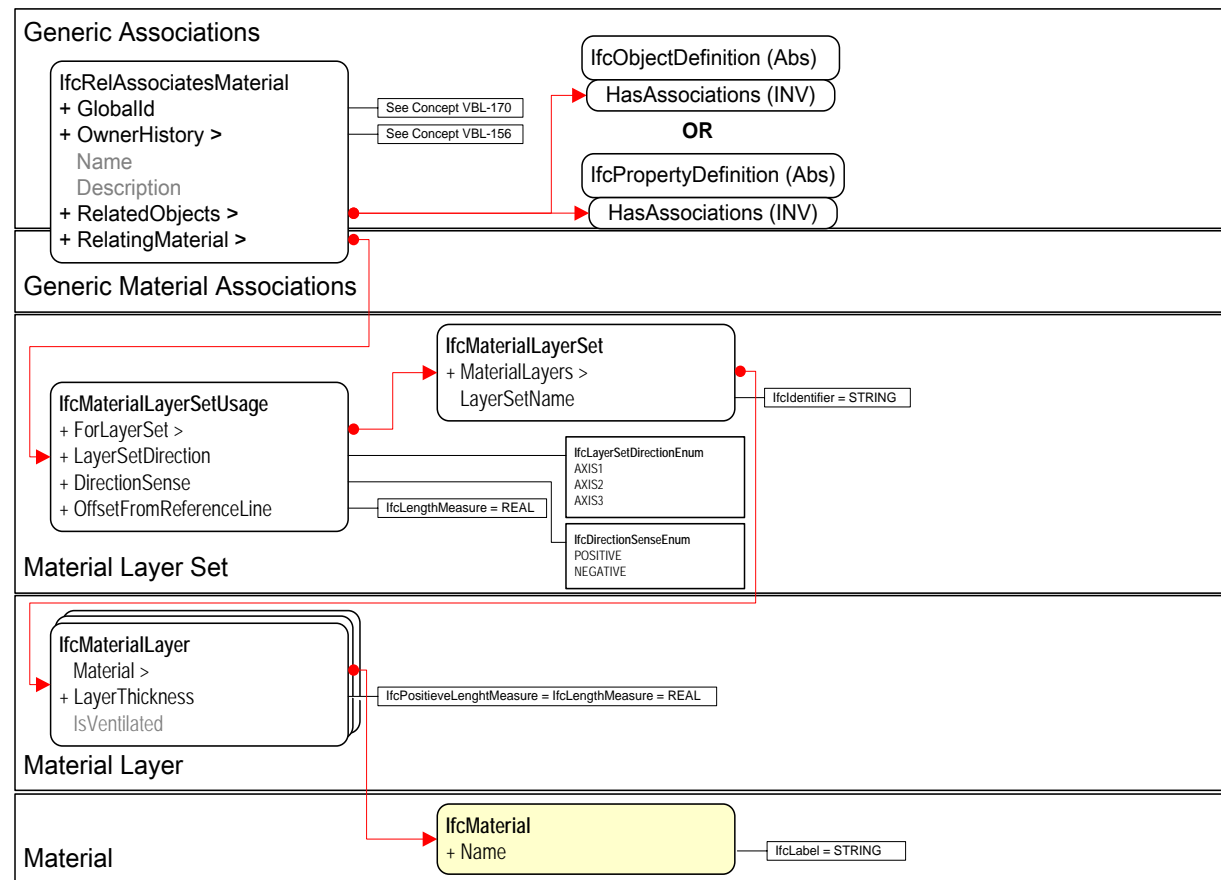
Implementation agreements

IfcRelAssociatesMaterial

Attribute	Implementation agreements
GlobalId	Required. Providing a GUID is mandatory, but the GUID is allowed to change.
OwnerHistory	Providing an OwnerHistory is mandatory, but it is allowed to use dummy data.
Name	Not required for this concept.
Description	Not required for this concept.
RelatedObjects	Must be IfcObjectDefinition or IfcPropertyDefinition.
RelatingMaterial	Must be IfcMaterialLayerSetUsage.

IfcMaterialLayerSetUsage

Attribute	Implementation agreements
ForLayerSet	Required. Must be an IfcMaterialLayerSet
LayerSetDirection	Required. Must be of type IfcLayerSetDirectionEnum. Value must be one of: .AXIS3., .AXIS2., .AXIS1.
DirectionSense	Required. Must be of type IfcDirectionSenseEnum. Value must be one of: .POSITIVE., .NEGATIVE.

OffsetFromReferenceLine	Required. Must be of type IfcLengthMeasure = REAL.

IfcMaterialLayerSet

Attribute	Implementation agreements
MaterialLayers	Required. Must be a list[1: ?] of type IfcMaterialLayer.
LayerSetName	Required. IfcLabel = STRING.
TotalThickness	Required. IfcLengthMeasure = REAL.

IfcMaterialLayer

Attribute	Implementation agreements
Material	Required. IfcMaterial.
LayerThickness	Required. Must be IfcPositiveLengthMeasure = REAL.
IsVentilated	Optional. IfcLogical = LOGICAL. Value must be one of: TRUE, FLASE, UNKNOWN

IfcMaterial

Attribute	Implementation agreements
Name	Required. IfcLabel = STRING.