IFC R2x IfcMeasureResource Units, Unit enumerations and measure defined datatypes — IAI MSG / 2000-10-08

Ref. ISO-1000+A1.1992, 1998. — IFC_R2xFinalMeasureTypesEnums_Summary.xls

Unit in English	Type	STEP Part41 msr value	Unit	Symbol	Unit derivation	IfcSiUnitEnum	IfcUnitEnum	IfcDerivedUnitEnum	Defined measure and value types
Absorbed dose, specific energy impact, kerma, absorbed dose index	SI / Derived		gray	Gy	J / kg	GRAY	ABSORBEDDOSEUNIT		IfcAbsorbedDoseMeasure
Acceleration	Derived				m / s²			ACCELERATIONUNIT	IfcAccelerationMeasure
Activity (of radionuclide)	SI / Derived		becquerel	Bq	1 / s	BECQUEREL	RADIOACTIVITYUNIT		IfcRadioActivityMeasure
Amount of substance	SI / Basic	✓	mole	mol		MOLE	AMOUNTOFSUBSTANCEUNIT		IfcAmountOfSubstanceMeasure
Angular velocity	Derived				rad / s			ANGULARVELOCITYUNIT	IfcAngularVelocityMeasure
Area	SI / Derived	✓	square metre	m²	m²	SQUARE_METRE	AREAUNIT		IfcAreaMeasure
-									IfcBoolean
Compound plane angle	Compound				degree, min, s			COMPOUNDPLANEANGLEUNIT	IfcCompoundPlaneAngleMeasure
-		✓							IfcContextDependentMeasure
-		✓							IfcCountMeasure
-		✓							IfcDescriptiveMeasure
Capacitance	SI / Derived		farad	F	C/V	FARAD	ELECTRICCAPACITANCEUNIT		IfcElectricCapacitanceMeasure
Celsius temperature	SI / Derived		degree Celsius	ºC	1 ºC = 1 K	DEGREE_CELSIUS	THERMODYNAMICTEMPERATUREUNIT		IfcThermodynamicTemperatureMeasure
Dose equivalent, dose equivalent index	SI / Derived		sievert	Sv	J / kg	SIEVERT	DOSEEQUIVALENTUNIT		IfcDoseEquivalentMeasure
Dynamic viscosity	Derived				Pa · s			DYNAMICVISCOSITYUNIT	IfcDynamicViscosityMeasure
Electric charge, quantity of electricity	SI / Derived		coulomb	C	A · s	COULOMB	ELECTRICCHARGEUNIT		IfcElectricChargeMeasure
Electric conductance	SI / Derived		siemens	S	I / Ω	SIEMENS	ELECTRICCONDUCTANCEUNIT		IfcElectricConductanceMeasure
Electric current	SI / Basic	✓	ampere	A		AMPERE	ELECTRICCURRENTUNIT		IfcElectricCurrentMeasure
Electric potential, potential difference, tension, electromotive force	SI / Derived		volt	V	W / A	VOLT	ELECTRICVOLTAGEUNIT		IfcElectricVoltageMeasure
Electric resistance	SI / Derived		ohm	Ω	V / A	OHM	ELECTRICRESISTANCEUNIT		IfcElectricResistanceMeasure
Energy, work, quantity of heat	SI / Derived		joule	J	N · m	JOULE	ENERGYUNIT		IfcEnergyMeasure
Force	SI / Derived		newton	N	kg · m / s²	NEWTON	FORCEUNIT		IfcForceMeasure
Frequency	SI / Derived		hertz	Hz	1 / s	HERTZ	FREQUENCYUNIT		IfcFrequencyMeasure
Heat flux density	Derived				W / m²			HEATFLUXDENSITYUNIT	IfcHeatFluxDensityMeasure
-									IfcIdentifier
Inductance	SI / Derived		henry	H	Wb / A	HENRY	INDUCTANCEUNIT		IfcInductanceMeasure
-									IfcInteger
(Integer) Count rate	Derived				1 / s			INTEGERCOUNTRATEUNIT	IfcIntegerCountRateMeasure
Isothermal moisture capacity	Derived				m³ / kg			ISOTHERMALMOISTURECAPACITYUNIT	IfcIsothermalMoistureCapacityMeasure
Kinematic viscosity	Derived				m² / s			KINEMATICVISCOSITYUNIT	IfcKinematicViscosityMeasure
Length	SI / Basic	✓	metre	m		METRE	LENGTHUNIT		IfcLengthMeasure
Illuminance	SI / Derived		lux	lx	lm / m²	LUX	ILLUMINANCEUNIT		IfcIlluminaceMeasure
-									IfcLabel
Luminous flux	SI / Derived		lumen	lm	cd · sr	LUMEN	LUMINOUSFLUXUNIT		IfcLuminousFluxMeasure
Linear force	Derived				N / m			LINEARFORCEUNIT	IfcLinearForceMeasure
Linear moment	Derived				N · m / m			LINEARMOMENTUNIT	IfcLinearMomentMeasure
Linear stiffness	Derived				N / m			LINEARSTIFFNESSUNIT	IfcLinearStiffnessMeasure
Linear velocity	Derived				m / s			LINEARVELOCITYUNIT	IfcLinearVelocityMeasure
-									IfcLogical
Luminous intensity	SI / Basic	✓	candela	cd		CANDELA	LUMINOUSINTENSITYUNIT		IfcLuminousIntensityMeasure
Magnetic flux	SI / Derived		weber	Wb	V · s	WEBER	MAGNETICFLUXUNIT		IfcMagneticFluxMeasure
Magnetic flux density	SI / Derived		tesla	T	Wb / m²	TESLA	MAGNETICFLUXDENSITYUNIT		IfcMagneticFluxDensityMeasure
Mass	SI / Basic	✓	kilogram	kg (g)		GRAM	MASSUNIT		IfcMassMeasure
Mass density	Derived				kg / m²			MASSDENSITYUNIT	IfcMassDensityMeasure
Mass flow rate	Derived				kg / s			MASSFLOWRATEUNIT	IfcMassFlowRateMeasure
Modulus of elasticity	Derived				N / m²			MODULUSOFELASTICITYUNIT	IfcModulusOfElasticityMeasure
Modulus of subgrade reaction	Derived				N / m³			MODULUSOFSUBGRADEREACTION	IfcModulusOfSubgradeReactionMeasure
Moisture diffusivity	Derived				m³ / s			MOISTUREDIFFUSIVITYUNIT	IfcMoistureDiffusivityMeasure
Molecular weight	Derived				g / mol			MOLECULARWEIGHTUNIT	IfcMolecularWeightMeasure
Moment of inertia	Derived				m^4			MOMENTOFINERTIAUNIT	IfcMomentOfInertiaMeasure
-									IfcMonetaryMeasure
-		✓							IfcNumericMeasure
-		✓							IfcParameterValue
Planar force	Derived				N / m²			PLANARFORCEUNIT	IfcPlanarForceMeasure
Plane angle	SI / Derived	✓	radian	rad	m / m = 1	RADIAN	PLANEANGLEUNIT		IfcPlaneAngleMeasure
(Positive length)		✓		m			LENGTHUNIT		IfcPositiveLengthMeasure
(Positive plane angle)		✓		rad			PLANEANGLEUNIT		IfcPositivePlaneAngleMeasure
-		✓							IfcPositiveRatioMeasure
Power, radiant flux	SI / Derived		watt	W	J / s	WATT	POWERUNIT		IfcPowerMeasure
Pressure, stress	SI / Derived		pascal	Pa	N / m²	PASCAL	PRESSUREUNIT		IfcPressureMeasure
-		✓							IfcRatioMeasure
-									IfcReal
Rotational frequency					cycles/s			ROTATIONALREQUENCYUNIT	IfcFrequencyMeasure
Rotational stiffness	Derived				N · m / rad			ROTATIONALSTIFFNESSUNIT	IfcRotationalStiffnessMeasure
Shear modulus	Derived				N / m²			SHEARMODULUSUNIT	IfcShearModulusMeasure
Solid angle	SI / Derived	✓	steradin	sr	m² / m² = 1	STERADIAN	SOLIDANGLEUNIT		IfcSolidAngleMeasure
Specific heat capacity	Derived				J / kg· K			SPECIFICHEATCAPACITYUNIT	IfcSpecificHeatCapacityMeasure
-									IfcText
Thermal admittance	Derived				W / m² · K			THERMALADMITTANCEUNIT	IfcThermalAdmittanceMeasure
Thermal conductivity	Derived				W / m · K			THERMALCONDUCTIVITYUNIT	IfcThermalConductivityMeasure
Thermal resistance	Derived				m² · K/W			THERMALRESISTANCEUNIT	IfcThermalResistanceMeasure
Thermal transmittance	Derived				W / m² · K			THERMALTRANSMITTANCEUNIT	IfcThermalTransmittanceMeasure
Thermodynamic temperature	SI / Basic	✓	kelvin	K		KELVIN	THERMODYNAMICTEMPERATUREUNIT		IfcThermodynamicTemperatureMeasure
Time	SI / Basic	✓	second	s		SECOND	TIMEUNIT		IfcTimeMeasure
-									IfcTimeStamp
Torque	Derived				Nm			TORQUEUNIT	IfcTorqueMeasure
Vapor permeability	Derived				kg / s · m · Pa			VAPORPERMEABILITYUNIT	IfcVaporPermeabilityMeasure
Volume	SI / Derived	✓	cubic metre	m³	m³	CUBIC_METRE	VOLUMEUNIT		IfcVolumeMeasure
Volumetric flow rate	Derived				m³ / s			VOLUMETRICFLOWRATEUNIT	IfcVolumetricFlowRateMeasure
-							USERDEFINED	USERDEFINED	