

IFC 2x2 lfcMeasureResource Units, Unit enumerations and measure defined datatypes

Ref. ISO-1000+A1.1992, 1998.

IAI MSG / 2003-05-02

IFC_2x2_MeasureTypesEnums_Summary.xls

STEP Part41		Unit				Unit			Defined measure and value types	
Unit in English	Type	msr value	Unit	Symbol	derivation	lfcSiUnitEnum	lfcUnitEnum	lfcDerivedUnitEnum		
Absorbed dose, specific energy impact, kerma, absorbed dose index	SI / Derived		gray	Gy	J / kg	GRAY	ABSORBEDDOSEUNIT		lfcAbsorbedDoseMeasure	
Acceleration	Derived				m / s ²			ACCELERATIONUNIT	lfcAccelerationMeasure	
Acidity (pH)	Derived		pH	pH	mol / l			ACIDITYUNIT	lfcPHMeasure	
Activity (of radionuclide)	SI / Derived		becquerel	Bq	1 / s	BECQUEREL	RADIOACTIVITYUNIT		lfcRadioActivityMeasure	
Amount of substance	SI / Basic	✓	mole	mol		MOLE	AMOUNTOFSUBSTANCEUNIT		lfcAmountOfSubstanceMeasure	
Angular velocity	Derived				rad / s			ANGULARVELOCITYUNIT	lfcAngularVelocityMeasure	
Area	SI / Derived	✓	square metre	m ²	m ²	SQUARE_METRE	AREAUNIT		lfcAreaMeasure	
-									lfcBoolean	
Compound plane angle	Compound				degree, min, s			COMPOUNDPLANEANGLEUNIT	lfcCompoundPlaneAngleMeasure	
-		✓							lfcContextDependentMeasure	
-		✓							lfcCountMeasure	
-		✓							lfcDescriptiveMeasure	
Capacitance	SI / Derived		farad	F	C/V	FARAD	ELECTRICCAPACITANCEUNIT		lfcElectricCapacitanceMeasure	
Celsius temperature	SI / Basic		degree Celsius	°C	1 °C = 1 K	DEGREE_CELSIUS	THERMODYNAMICTEMPERATUREUNIT		lfcThermodynamicTemperatureMeasure	
Curvatur	Derived				rad / m			CURVATUREUNIT	lfcCurvatureMeasure	
Dose equivalent, dose equivalent index	SI / Derived		sievert	Sv	J / kg	SIEVERT	DOSEEQUIVALENTUNIT		lfcDoseEquivalentMeasure	
Dynamic viscosity	Derived				Pa · s			DYNAMICVISCOSITYUNIT	lfcDynamicViscosityMeasure	
Electric charge, quantity of electricity	SI / Derived		coulomb	C	A · s	COULOMB	ELECTRICCHARGEUNIT		lfcElectricChargeMeasure	
Electric conductance	SI / Derived		siemens	S	1 / Ω	SIEMENS	ELECTRICCONDUCTANCEUNIT		lfcElectricConductanceMeasure	
Electric current	SI / Basic	✓	ampere	A		AMPERE	ELECTRICCURRENTUNIT		lfcElectricCurrentMeasure	
Electric potential, potential difference, tension, electromotive force	SI / Derived		volt	V	W / A	VOLT	ELECTRICVOLTAGEUNIT		lfcElectricVoltageMeasure	
Electric resistance	SI / Derived		ohm	Ω	V / A	OHM	ELECTRICRESISTANCEUNIT		lfcElectricResistanceMeasure	
Energy, work, quantity of heat	SI / Derived		joule	J	N · m	JOULE	ENERGYUNIT		lfcEnergyMeasure	
Force	SI / Derived		newton	N	kg · m / s ²	NEWTON	FORCEUNIT		lfcForceMeasure	
Frequency	SI / Derived		hertz	Hz	1 / s	HERTZ	FREQUENCYUNIT		lfcFrequencyMeasure	
Heat flux density	Derived				W / m ²			HEATFLUXDENSITYUNIT	lfcHeatFluxDensityMeasure	
Heating value	Derived				J / kg			HEATINGVALUEUNIT	lfcHeatingValueMeasure	
-									lfcIdentifier	
Illuminance	SI / Derived		lux	lx	lm / m ²	LUX	ILLUMINANCEUNIT		lfcIlluminanceMeasure	
Inductance	SI / Derived		henry	H	Wb / A	HENRY	INDUCTANCEUNIT		lfcInductanceMeasure	
-									lfcInteger	
(Integer) Count rate	Derived				1 / s			INTEGERCOUNTRATEUNIT	lfcIntegerCountRateMeasure	
Ion concentration	Derived				g / l			IONCONCENTRATIONUNIT	lfcIonConcentrationMeasure	
Isothermal moisture capacity	Derived				m ³ / kg			ISOTHERMALMOISTURECAPACITYUNIT	lfcIsothermalMoistureCapacityMeasure	
Kinematic viscosity	Derived				m ² / s			KINEMATICVISCOSITYUNIT	lfcKinematicViscosityMeasure	
Length	SI / Basic	✓	metre	m		METRE	LENGTHUNIT		lfcLengthMeasure	
-									lfcLabel	
Linear force	Derived				N / m			LINEARFORCEUNIT	lfcLinearForceMeasure	
Linear moment	Derived				N · m / m			LINEARMOMENTUNIT	lfcLinearMomentMeasure	
Linear stiffness	Derived				N / m			LINEARSTIFFNESSUNIT	lfcLinearStiffnessMeasure	
Linear velocity	Derived				m / s			LINEARVELOCITYUNIT	lfcLinearVelocityMeasure	
-									lfcLogical	
Luminous flux	SI / Derived		lumen	lm	cd · sr	LUMEN	LUMINOUSFLUXUNIT		lfcLuminousFluxMeasure	
Luminous intensity	SI / Basic	✓	candela	cd		CANDELA	LUMINOUSINTENSITYUNIT		lfcLuminousIntensityMeasure	
Luminous intensity distribution	Derived				cd / lm			LUMINOUSINTENSITYDISTRIBUTIONUNIT	lfcLuminousIntensityDistributionMeasure	
Magnetic flux	SI / Derived		weber	Wb	V · s	WEBER	MAGNETICFLUXUNIT		lfcMagneticFluxMeasure	
Magnetic flux density	SI / Derived		tesla	T	Wb / m ²	TESLA	MAGNETICFLUXDENSITYUNIT		lfcMagneticFluxDensityMeasure	
Mass	SI / Basic	✓	gram	g (kg)		GRAM	MASSUNIT		lfcMassMeasure	
Mass density	Derived				kg / m ³			MASSDENSITYUNIT	lfcMassDensityMeasure	
Mass flow rate	Derived				kg / s			MASSFLOWRATEUNIT	lfcMassFlowRateMeasure	
Mass per length	Derived				kg / m			MASSPERLENGTHUNIT	lfcMassPerLengthMeasure	
Modulus of elasticity	Derived				N / m ²			MODULUSOFELASTICITYUNIT	lfcModulusOfElasticityMeasure	
Modulus of linear subgrade reaction	Derived				N / m ²			MODULUSOFLINEARSUBGRADEREACTIONUNIT	lfcModulusOfLinearSubgradeReactionMeasure	
Modulus of rotational subgrade reaction	Derived				N · m / m · rad			MODULUSOFROTATIONALSUBGRADEREACTIONUNIT	lfcModulusOfRotationalSubgradeReactionMeasure	
Modulus of subgrade reaction	Derived				N / m ³			MODULUSOFSUBGRADEREACTIONUNIT	lfcModulusOfSubgradeReactionMeasure	
Moisture diffusivity	Derived				m ² / s			MOISTUREDIFFUSIVITYUNIT	lfcMoistureDiffusivityMeasure	
Molecular weight	Derived				g / mol			MOLECULARWEIGHTUNIT	lfcMolecularWeightMeasure	
Moment of inertia	Derived				m ⁴			MOMENTOFINERTIAUNIT	lfcMomentOfInertiaMeasure	
-									lfcMonetaryMeasure	
-		✓							lfcNormalisedRatioMeasure	
-		✓							lfcNumericMeasure	
-									lfcParameterValue	
Planar force	Derived				N / m ²			PLANARFORCEUNIT	lfcPlanarForceMeasure	
Plane angle	SI / Derived	✓	radian	rad	m / m = 1	RADIAN	PLANEANGLEUNIT		lfcPlaneAngleMeasure	

(Positive length)		✓		m			LENGTHUNIT		lfcPositiveLengthMeasure
(Positive plane angle)		✓		rad			PLANEANGLEUNIT		lfcPositivePlaneAngleMeasure
-		✓							lfcPositiveRatioMeasure
Power	SI / Derived		watt	W	J / s	WATT	POWERUNIT		lfcPowerMeasure
Pressure, stress	SI / Derived		pascal	Pa	N / m ²	PASCAL	PRESSUREUNIT		lfcPressureMeasure
-		✓							lfcRatioMeasure
-									lfcReal
Rotational frequency	Derived				cycles/s			ROTATIONALFREQUENCYUNIT	lfcFrequencyMeasure
Rotational mass	Derived				kg · m ²			ROTATIONALMASSUNIT	lfcRotationalMassMeasure
Rotational stiffness	Derived				N · m / rad			ROTATIONALSTIFFNESSUNIT	lfcRotationalStiffnessMeasure
Sectional area integral	Derived				m ⁵			SECTIONALAREAINTEGRALUNIT	lfcSectionalAreaIntegralMeasure
Section modulus	Derived				m ³			SECTIONMODULUSUNIT	lfcSectionModulusMeasure
Shear modulus	Derived				N / m ²			SHEARMODULUSUNIT	lfcShearModulusMeasure
Solid angle	SI / Derived	✓	steradin	sr	m ² / m ² = 1	STERADIAN	SOLIDANGLEUNIT		lfcSolidAngleMeasure
Specific heat capacity	Derived				J / kg · K			SPECIFICHEATCAPACITYUNIT	lfcSpecificHeatCapacityMeasure
Temperature gradient					K / m			TEMPERATUREGRADIENTUNIT	lfcTemperatureGradientMeasure
-									lfcText
Thermal admittance	Derived				W / m ² · K			THERMALADMITTANCEUNIT	lfcThermalAdmittanceMeasure
Thermal conductivity	Derived				W / m · K			THERMALCONDUCTIVITYUNIT	lfcThermalConductivityMeasure
Thermal expansion coefficient					1 / K			THERMALEXPANSIONCOEFFICIENTUNIT	lfcThermalExpansionCoefficientMeasure
Thermal resistance	Derived				m ² · K/W			THERMALRESISTANCEUNIT	lfcThermalResistanceMeasure
Thermal transmittance	Derived				W / m ² · K			THERMALTRANSMITTANCEUNIT	lfcThermalTransmittanceMeasure
Thermodynamic temperature	SI / Basic	✓	kelvin	K		KELVIN	THERMODYNAMICTEMPERATUREUNIT		lfcThermodynamicTemperatureMeasure
Time	SI / Basic	✓	second	s		SECOND	TIMEUNIT		lfcTimeMeasure
-									lfcTimeStamp
Torque	Derived				Nm			TORQUEUNIT	lfcTorqueMeasure
Vapor permeability	Derived				kg / s · m · Pa			VAPORPERMEABILITYUNIT	lfcVaporPermeabilityMeasure
Volume	SI / Derived	✓	cubic metre	m ³	m ³	CUBIC_METRE	VOLUMEUNIT		lfcVolumeMeasure
Volumetric flow rate	Derived				m ³ / s			VOLUMETRICFLOWRATEUNIT	lfcVolumetricFlowRateMeasure
Warping constant					m ³			WARPINGCONSTANTUNIT	lfcWarpingConstantMeasure
Warping moment	Derived				N · m ²			WARPINGMOMENTUNIT	lfcWarpingMomentMeasure
-							USERDEFINED	USERDEFINED	