

ภาคผนวก ง.

DERIVED SI UNITS

Quantity	Name(s) of Unit	Unit Symbol or Abbreviation, Where Differing from Basic Form	Unit Expressed in Terms of Basic or Supplementary Units
Area	square meter.		m^2
Volume	cubic meter		m^3
Frequency	hertz, cycle per second	Hz	s^{-1}
Density, concentration	kilogram per cubic meter		kg/m^3
Velocity	meter per second		m/s
Angular velocity	radian per second		rad/s
Acceleration	meter per second squared		m/s^2
Angular acceleration	radian per second squared		rad/s^2
Volumetric flow rate	cubic meter per second		m^3/s
Force	newton	N	$kg \cdot m/s^2$
Surface tension	Newton per meter, joule per square meter	N/m J/m^2	kg/s^2
Pressure	newton per square meter, pascal	N/m^2 , Pa	$kg/m \cdot s^2$
Viscosity, dynamic	newton-second per square meter, poiseuille	$N \cdot s/m^2$, PI	$kg/m \cdot s$
Viscosity, kinematic; diffusivity; mass conductivity	meter squared per second		m^2/s
Work, torque, energy, quantity of heat	joule, newton-meter, wattsecond	J, N·m, W·s	$kg \cdot m^2/s^2$
Power, heat flux	watt, joule per second	W, J/s	$kg \cdot m^2/s^3$
Heat flux density	watt per square meter	W/m^2	kg/s^3
Volumetric heat release rate	watt per cubic meter	W/m^3	$kg/m \cdot s^3$
Heat-transfer coefficient	watt per square meter-degree	$W/m^2 \cdot deg$	$kg/s^3 \cdot deg$
Latent heat, enthalpy (specific)	joule per kilogram	J/kg	m^2/s^2
Heat capacity (specific)	joule per kilogram-degree	$J/kg \cdot deg$	$m^2/s^2 \cdot deg$
Capacity rate	watt per degree	W/deg	$kg \cdot m^2/s^2 \cdot deg$
Thermal conductivity	watt per meter-degree	$W/m \cdot deg$, $J \cdot m/s \cdot m^2 \cdot deg$	$kg \cdot m/s^3 \cdot deg$
Mass flux, mass flow rate	kilogram per second		kg/s

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Mass flux density, mass flow rate per unit area	kilogram per square metersecond		$\text{kg/m}^2\cdot\text{s}$
Mass-transfer coefficient	meter per second		m/s
Quantity of electricity	coulomb	C	A·s
Electromotive force	volt	V. W/A	$\text{kg}\cdot\text{m}^2/\text{A}\cdot\text{s}^3$
Electric resistance	ohm	Ω , V/A	$\text{kg}\cdot\text{m}^2/\text{A}^2\cdot\text{s}^3$
Electric conductivity	ampere per volt meter	A/V·m	$\text{A}^2\cdot\text{s}^3/\text{kg}\cdot\text{m}^3$
Electric capacitance	farda	F, A·s/V	$\text{A}^3\cdot\text{s}^4/\text{kg}\cdot\text{m}^2$
Magnetic-flux	weber	Wb, V·s	$\text{kg}\cdot\text{m}^2/\text{A}\cdot\text{s}^2$
Inductance	henry	H. V·s/A	$\text{kg}\cdot\text{m}^2/\text{A}^2\cdot\text{s}^2$
Magnetic permeability	henry per meter	H/m	$\text{kg}\cdot\text{m}/\text{A}^2\cdot\text{s}^2$
Magnetic flux density	tesla, weber per square meter	T. Wb/m ²	$\text{kg}/\text{A}\cdot\text{s}^2$
Magnetic field strength	ampere per meter		A/m
Magnetomotive force	ampere		A
Luminous flux	lumen	lm	cd·sr
Luminance	candela per square meter		cd/m^2
Illumination	lux, lumen per square meter	lx. lm/m ²	$\text{cd}\cdot\text{sr}/\text{m}^2$