



Cycletime Tips - Automotive

Volume 5: Commonly Used Conversion Factors for Plastic Materials

This is our most current Conversion Table. We think this information will be very useful to our Customers. We will update this information from time to time.

To Convert	MultiplyBy	To Obtain	To Convert	MultiplyBy	To Obtain
			kg/cm ²	0.1	MPa
ϕ/lb	0.036(sp grav)	ϕ/in ³	kg/cm ²	14.22	psi
°C	1.8(°C) + 32	°F	kg-cm/cm	0.18	ft-lbs/in
°F	0.56(°F - 32)	°C	kg-cm/cm	9.81	J/m
ft-lbs	1.36	J	kg-cm/cm ²	0.47	ft-lbs/in ²
ft-lbs	13.83	kg-cm	kg/m ³	0.001	g/cm ³
ft-lbs/in	3.23 ISO	ft-lbs/in ²	kJ/m ²	10.2 ASTM	J/m
ft-lbs/in	53.39	J/m		kJ/m ²	0.19 ASTM
ft-lbs/in	5.44	kg-cm/cm	kJ/m ²		0.48
ft-lbs/in	5.24 ASTM	kJ/m ²	kJ/m ²	8 ISO	J/m
ft-lbs/in	6.68 ISO	kJ/m ²	kJ/m ²	0.15 ISO	ft-lbs/in
ft-lbs/in ²	0.31 ISO	ft-lbs/in	kN/m	5.7	lbs/in
ft-lbs/in ²	2.12	kg-cm/cm ²	lbs/in	0.18	kg/cm
ft-lbs/in ²	2.07 ISO	kJ/m ²	lbs/in	0.175	kN/m
g/cm ³	1,000	kg/m ³	lbs/in	175	N/m
in/in/°F	1.8	mm/mm/°C	microns	0.000039	in
in/min	25.4	mm/min	microns	0.039	thousandths
in-lbs	0.11	J	miles/hr	0.45	m/sec
in-lbs	1.15	kg-cm	mm/min	0.039	in/min
J	0.74	ft-lbs	mm/mm/°C	0.56	in/in/°F
J	8.85	in-lbs	MPa	10.2	kg/cm ²
J	10.2	kg-cm	MPa	145	psi
J/m	0.019	ft-lbs/in	m/sec	2.24	miles/hr
J/m	0.10 ASTM	kJ/m ²			

J/m	0.12 ISO	kJ/m ²	N/m	0.0057	lbs/in
J/m	0.1	kg-cm/cm	N/mm ²	145	psi
kg-cm	0.07	ft-lbs	psi	0.0069	N/mm ²
kg-cm	0.87	in-lbs	psi	0.0069	MPa
kg-cm	0.1	J	psi	0.07	kg/cm ²
kg/cm	5.6	lbs/in			

If "ASTM" is noted, the indicated conversions apply to an ASTM notched Izod test specimen. If "ISO" is noted, the indicated conversions apply to an ISO notched Izod specimen.

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