

Typical DDR Values

Metal Mode Sputtering

Target material	DC nDDR*	AC nDDR*	Maximum power (kW/m)
Aluminum	9.00	7.65	90.0
Chromium	9.90	8.42	75.0
Copper	16.2	13.77	90.0
Germanium	9.00	7.65	37.5
Molybdenum	7.20	6.12	75.0
Nickel	12.60	10.71	75.0
Niobium	5.40	4.59	75.0
Silicon	4.50	3.83	20.0
Stainless Steel	6.50	5.20	100.0
Tantalum	4.50	3.83	75.0
Tin	9.90	8.42	75.0
Titanium	4.05	3.44	75.0
Tungsten	4.50	3.83	75.0
Zirconium	4.50	3.83	75.0

*((nm) x (m/min))/(kW/m)

To avoid damaging targets, check all maximum power densities with the target vendor.

This data is a collection of averaged published rates and of in-house testing; individual rates may vary. The data is subject to change without notice.

Conductive Ceramic Sputtering

Target material	DC nDDR*	Maximum power (kW/m)
AZO	8.20	27.0
ITO	10.00	15.0

*((nm) x (m/min))/(kW/m)

Reactive Sputtering (mid frequency AC/pulse DC)

Target material	Coating material	Typical DDR*	Optimized DDR*	Maximum power (kW/m)
Aluminum	Al ₂ O ₂	20	60	75
Niobium	Nb ₂ O ₅	25	60	50
Silicon	SiO ₂	10	45	20
Titanium	TiO ₂	20	40	75
Titanium	TiN	10	22	75
Zinc	ZnO	16	120	25

*nm x m/min