



TECHNICAL DATASHEET

SmCo Grade S32M

Grade-specific magnetic properties reference for S32M.



Ningbo Empire New Material Co.,Ltd
Ningbo Empire Imp&Exp; Co.,Ltd.
#2432 East BaiZhang Road, Ningbo,China
WhatsApp: +8613805876186
Website: empiremagnets.com

Technical Data 1

Grade	Br mT (kGs)	Hcb kA/m (kOe)	Hcj kA/m (kOe)	(BH)max kJ/m3 (MGOe)	alphaBr %/ deg C	betaHcj %/ deg C
S32M	1110-1150 (11.1-11.5)	717-844 (9.0-10.6)	796-1273 (10-16)	239-263 (30-33)	0.038	0.2

Technical Data 2

Family	Energy / coercivity character	Temperature behavior	Processing note	Typical use
SmCo5 (1:5)	Lower energy, high coercivity	Excellent	Fine/brittle; grinding only	Small parts, sensors, microwave devices
Sm2Co17 (2:17)	Higher energy product	Excellent to extreme-temperature classes	Grinding only; edge protection important	Motors, aerospace/industrial actuators, oil & gas
HTS 2:17	Application-specific high-temperature family	Up to ~350 deg C class where validated	Test condition must be defined	Downhole, high-temperature actuation

Technical Data 3

Process	Typical Tolerance	Notes
As-sintered	+/-0.1 mm	Non-critical faces
Ground	+/-0.05 mm	Standard mating dimensions
Precision ground	+/-0.02 mm	Locating / press-fit dimensions
Parallelism / perpendicularity	Per drawing	DFM confirmation

Engineering note

Values are reference specifications unless explicitly stated as guaranteed on a quotation or approved drawing. Final grade, geometry, tolerance, coating, magnetization, operating temperature and validation requirements must be confirmed for the actual application.