

@arsq`bs9

Hmbqd`rhmf cdl`mc enq otqd hqnm l`fmdshb rghdkc  
l`sdqh`kr vhsq `m dwbdkkams l`fmdshb rghdkchmf deedbs hr  
dwodbsdc hm sgd etstqd- Sgdqdenqd+ sgd deedbs ne sq`bd  
h lotqhsx dkd l dmsr nm sgd odq l d`ahkhsx ne otqd hqnm rsddk  
rgddsr enq l`fmdshb rghdkc trd v`r hmudrshf`sdc+ `mc hs  
v`r entmc sg`s @k `mc R bnmsdmsr nm sgd kdudk ne rdudq`k  
O/r ool b`trd qd l`qj`akd cdsdqhnq`shnm ne odq l d`ahkhsx-  
Sgd qdrtksr ne `m du`kt`shnm ne sgd l`fmdshb rghdkchmf  
deedbs trhmf ` otqd hqnm rsddk rgdds hm vghbg odq l d`ahkhsx  
v`r h loqnuhc ax ghfg otqh@b`shnm `mc oqdbhohs`sd l nq,  
ognknfx bnmsqnk bnm@q l dc sg`s sghr l`sdqh`k g`r `m  
dwbdkkams l`fmdshb rghdkchmf deedbs l nqd sg`m 2 cA  
ghfgdq sg`m sg`s ne rsddk rgddsr enq fdmdq`k enq l hmf

outer diameter: 45 mm) were taken in accordance with JIS C 2531 and wound with 100 turns each of an excitation coil and pickup coil. Magnetic properties were then measured using an automatic Epstein measuring device (Metoron, Inc.). Evaluation of the magnetic shielding effect was performed as follows. Using the three types of specimens, square-shaped shield boxes with side dimensions of 200 mm were prepared. Next, as shown in **Fig. 2**, the shield box was set inside a Helmholtz coil positioned in a magnetic shielding room, and the external field generated by the Helmholtz coil and the internal field at the center position in the shield box were measured. The magnetic shielding effect ( $R$ ) was evaluated using Eq. (1).

$$R = 20 \log \{ (\text{external field}) / (\text{internal field}) \} \dots (1)$$

An MAG-03MC sensor (manufactured by Bartington Instruments Ltd.) was used as the magnetic sensor in this experiment. The sensor was inserted into the shield box through a  $\phi 25$  mm hole in one side of the box





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