

ACME Magnetic Foils

Technical Data For TM18-300

General Characteristics

Base film material	Polyester
Magnetic layer material	Iron Oxide
Color	Black
Film/Coating adhesion	< 10 cN

Thickness Characteristics

Base film Thickness	$18 \pm 1 \mu\text{m}$
Magnetic layer thickness	$10 \pm \frac{0}{0.1} \mu\text{m}$
Protection layer thickness	$2.5 \pm 0.5 \mu\text{m}$
Adhesive thickness	$2.5 \pm 0.5 \mu\text{m}$
Adhesive activation temperature	80°C

Magnetic Characteristics

Coercivity H_c	27.5kA/m (345 Oe)
Retentivity M_r	$\geq 100\text{mT}$
Squareness	≥ 0.8
Switching field SFD	≤ 0.3
Orientation factor	≥ 2.0

Signal Amplitude Characteristics

Signal amplitude U_{A1}	$110 \pm 15 \% U_R$
Signal amplitude U_{I1}	$\leq 146 \% U_R$
Signal amplitude U_{A2}	$\geq 80 \% U_R$
Signal amplitude U_{I2}	$\geq 65 \% U_R$
Resolution U_{A3}	$\geq 72 \% U_{A2}$
Erasure U_{A4}	$\leq 3 \%$
Extra pulse U_{I4}	$\leq 5 \%$

Wear Resistance Characteristics

According to ISO/IEC 7811-2/10373-1

Average signal amplitude U_A after	$\geq 60 \% U_A$ before
Individual signal amplitude U_I after	$\geq 80 \% U_A$ after

Chemical Resistance Characteristics

According to ISO/IEC 7811-2/10373-1

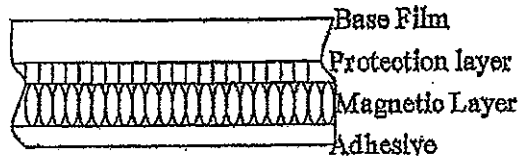
Average signal amplitude U_A after	$\geq 90 \% U_A$ before
Individual signal amplitude U_I after	$\geq 90 \% U_A$ after

Storage Conditions

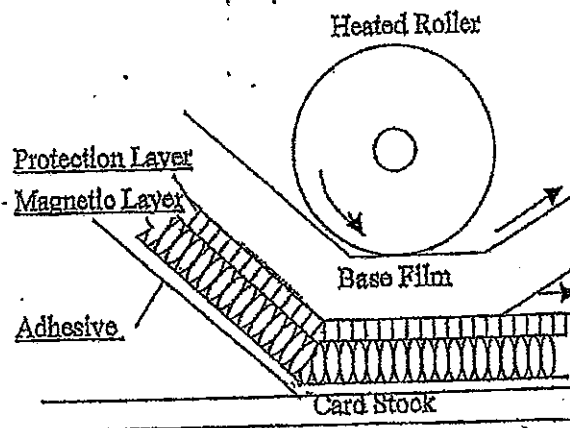
For tape with adhesive:

The allowed storage period for the reel is 3 years at	
temperature	10 °C – 35°C
humidity	40% - 60 % RH
Additional pressure on the windings shall be avoided	

Film - Coating Composite



Transfer Process



Saturation Curve

Readback Voltage - Calibration in %

