

# Piano(Music) Wire

## Chemical composition

Classification	KS D 3556 PW-1/2	JIS G 3522 SWP-A/B	DIN 17223 Pt1		BS 5216 Type M	EN 10270-1 Type DM/DH	ASTM A228
			0.70 ~ 6.00mm	6.00 ~ 13.0mm			
Carbon(C)	0.60 ~ 0.95	0.60 ~ 0.95	0.70 ~ 1.00	0.50 ~ 1.00	0.70 ~ 1.00	0.45 ~ 1.00	0.70 ~ 1.00
Manganese(Mn)	0.30 ~ 0.90	0.30 ~ 0.90	0.30 ~ 1.50	0.30 ~ 1.50	0.25 ~ 0.75	0.50 ~ 1.20	0.20 ~ 0.60
Phosphorus(P)	0.025Max	0.025 Max	0.030Max	0.030Max	0.030Max	0.020Max	0.025Max
Sulfur(S)	0.025Max	0.025 Max	0.030Max	0.030Max	0.030Max	0.025Max	0.025Max
Silicon(Si)	0.12 ~ 0.30	0.12 ~ 0.32	0.35 Max	0.35Max	0.35Max	0.10 ~ 0.30	0.10 ~ 0.30
Copper(Cu)	0.20Max	0.20Max	0.20Max	0.20Max	-	0.12Max	-

## Classification

Classification	Diameter	Diameter
KS D 3556	PW - 1	0.20mm ~ 10.0mm
	PW - 2	0.20mm ~ 7.00mm
JIS G 3522	SWP - A	0.20mm ~ 10.0mm
	SWP - B	0.20mm ~ 7.00mm

## Torsion

Classification	Diameter	Specification
No. of Turns	0.70mm ~ 2.00mm	≥ 25 times
	2.01mm ~ 3.50mm	≥ 20 times
	3.51mm ~ 6.00mm	≥ 15 times
Fracture Shape	Perpendicular to the longitudinal axis of the test specimen	
Check Criteria	No serious cracks, surface defects and partial torsion	

※ Applicable for SWP-A & SWP-B

## Wire diameter tolerance and ovality

Diameter(mm)	Tolerance(mm)	Ovality(mm)	Remark
0.20	± 0.004	≤ 0.004	1.Ovality : The difference between maximum and minimum wire diameter to the same test point
0.20 ~ 0.50	± 0.008	≤ 0.008	
0.51 ~ 1.00	± 0.010	≤ 0.010	
1.01 ~ 2.00	± 0.015	≤ 0.015	
2.01 ~ 3.20	± 0.020	≤ 0.020	
3.21 ~ 5.50	± 0.030	≤ 0.030	
5.51 ~ 8.50	± 0.040	≤ 0.040	
8.51 ~ 10.0	± 0.050	≤ 0.050	