STATO 75

Oil tempered SiCrV-alloyed spring wire

STATO 75 is especially intended for the manufacture of springs exposed to static or moderately high fatigue stresses. The material has good relaxation properties.

The wire is manufactured in sizes from Ø 2.00 mm to 7.00 mm. Other wire sizes on request.

CHEMICAL COMPOSITION

C (%)	Si (%)	Mn (%)	P max. (%)	S max. (%)	Cr (%)	V (%)
0.50 - 0.70	1.20 - 1.65	0.50 - 0.80	0.025	0.025	0.50 - 1.00	0.05 - 0.20

MECHANICAL PROPERTIES

FOR ROUND WIRE

Diameter (mm)	Tolerance (± mm)	Tensile Strength (N/mm^2)	Reduct. of area (min. %)
2.00 - 2.50	0.020	2110 - 2210	45
2.51 - 3.20	0.020	2060 - 2160	45
3.21 - 4.00	0.025	2010 - 2110	45
4.01 - 5.00	0.025	1960 - 2060	45
5.01 - 5.60	0.030	1910 - 2010	40
5.61 - 6.50	0.035	1910 - 2010	40
6.51 - 7.00	0.035	1860 - 2010	40

YIELD POINT

The proof stress $R_{p0.2}$ is min. 0.9 x tensile strength of the wire.

SURFACE CONDITIONS

SURFACE CONDITION

Surface condition – end sample test
The wire is end sample tested by means of etch testing and binocular inspection as well as microscopical inspection of the material structure.

Max. permissible depth of partial surface decarburization and surface defects, 1.5% x wire diameter. No complete decarburization allowed.

For further technical support, please contact Suzuki Garphyttan or visit www.suzuki-garphyttan.com for more information

STATO 75

PHYSICAL PROPERTIES

E AND G MODULUS OF ELASTICITY

About 206 kN/mm^2

E AND G MODULUS OF SHEAR

About 79.5 kN/mm^2

STANDARDS

NEAREST EQUIVALENT STEEL GRADES

EN FDSiCrV

NEAREST EQUIVALENT STANDARDS

EN 10270-2

RECOMMENDATIONS

HEAT TREATMENT

As soon as possible after coiling, the springs should be stress relieved.

HOT PRESETTING

After shot peening, the springs should be hot preset or stress relieved. In order to reach optimum fatigue and relaxation properties, the springs must be preset at an appropriate stress

SHOT PEENING

In order to obtain optimum fatigue properties, the process time should be adjusted to get a complete treatment. Size of shots should be adapted to wire dimension, pitch and shot peening equipment. Shot peening of the inside of the spring coils is particularly critical.