

DIN 8559-1984

SG 2 -M2 Y46 54

SG 2 = Solid or a fluxcored wire

Symbol	Chemical composition of the wire					
	C	Si	Mn	P	S	Cu
SG 1	0.06-0.12	0.5-0.7	1.0-1.3	≤ 0.025	≤ 0.025	≤ 0.30
SG 2	0.06-0.13	> 0.7-1.0	> 1.3-1.6	≤ 0.025	≤ 0.025	≤ 0.30
SG 3	0.06-0.13	0.8-1.2	> 1.6-1.9	≤ 0.025	≤ 0.025	≤ 0.30

Symbol	Chemical composition of the wire						
	C	Si	Mn	P	S	Cu	Ni
SG R1	0.05-0.12	0.2-0.6	0.8-1.4	≤ 0.03	≤ 0.03	≤ 0.30	≤ 0.7
SG B1	0.05-0.12	0.15-0.45	0.8-1.6	≤ 0.03	≤ 0.03	≤ 0.30	≤ 0.7

Symbol	Kind of shieldgas
R	reducerend gas
I	inert gas
M1	mixed gas
M2	mixed gas
M3	mixed gas
C	carbon dioxide
F	nitrogen-hydrogen mixture

Symbol	Tensile strength N/mm ²	Yield strength min. N/mm ²	Stretch A ₅ min. %
Y 42	500-640	420	22
Y 46	530-680	460	22
Y 50	560-720	500	22

First Digit	Impact strength Charpy V temp °C for 47J min.	Second Digit	Impact strength Charpy V temp °C for 47J min.
0	not gesp.	0	not gesp.
1	.+20	1	.+20
2	0	2	0
3	-20	3	-20
4	-30	4	-30
5	-40	5	-40