

EN ISO 21952-A:2008: W MoVSi  
 AWS A5.28-05: ER80S-G  
 AWS A5.28M-05: ER55S-G  
 W. No.: 1.5407

## BÖHLER DMV 83-IG

GTAW rod, low-alloyed, high temperature

### Description

GTAW rod specially designed for the base metal 14MoV6-3 (½ Cr ½ Mo ¼ V). Approved in long-term condition up to +560°C service temperature. Tough, cracking resistant deposit with good creep rupture strength.

### Typical Composition of Welding Rod

	C	Si	Mn	Cr	Mo	V
wt-%	<b>0.08</b>	<b>0.6</b>	<b>0.9</b>	<b>0.45</b>	<b>0.85</b>	<b>0.35</b>

### Mechanical Properties of All-weld Metal

	a	
yield strength $R_e$ N/mm <sup>2</sup> (MPa):	<b>520</b>	(≥470)
tensile strength $R_m$ N/mm <sup>2</sup> (MPa):	<b>670</b>	(≥580)
elongation A ( $L_0=5d_0$ ) %:	<b>24</b>	(≥20)
impact work ISO-V KV J +20°C:	<b>220</b>	(≥47)

a annealed, 700°C/2 h/furnace down to 300°C/air – shielding gas Argon

### Operating Data



shielding gas: **100% Argon**  
 rod marking:  
 front: ✦ **W MoV Si**  
 back: **1.5407**

ø mm  
2.4



Preheating and interpass temperatures 200-300°C. Tempering at 700-720°C at least 2 hrs followed by cooling in furnace down to 300°C and still air.

### Base Materials

similar alloyed high temperature steels and cast steels

1.7715 14MoV6-3, 1.7733 24CrMoV5-5, 1.7709 21CrMoV5-7, 1.8070 21CrMoV5-11,  
 1.7706 G17CrMoV5-10,

ASTM A389 Gr. C23 u. C24, A405 Gr. P24, UNS I21610

### Approvals and Certificates

TÜV-D (1093.), TÜV-A (120), LTSS, SEPROZ, CE

### Same Alloy Filler Metals

SMAW electrode: FOX DMV 83 Kb  
 GTAW rod: DMV 83-IG  
 GMAW solid wire: DMV 83-IG