Overview of the shielding gas groups

Short description[1]		Components in volume percent						Common application	Remarks
Group	Code	Oxidising		Inert		Reducing	Slow-responding		
		CO_2	O_2	Ar	He	H_2	N_2		
R	1			Rest [2]		> 0 bis 15		TIG, plasma welding, plasma cutting, backing	
	2					> 15 to 35			
I	1			100				MIG, TIG, plasma welding, backing	Inert
	2				100				
	3			Rest	> 0 to 95				
M1	1	> 0 to 5		Rest [2]		> 0 to 5		MAG	Weak oxidising effect
	2								
	3		> 0 to 3						
	4	> 0 to 5							
M2	1	>5 to 25							
	2		> 3 to 10						
	3	> 0 to 5							
	4	<5 to 25	> 0 to 8						
M3	1	> 25 to 50							
	2		> 10 to 15						
	3	> 5 to 50	> 8 to 15						
C	1	100					100	Plasma cutting, backing	Strong oxidising effect
	2	Rest	> 0 to 30						
F	1					> 0 to 50	Rest		Slow-responding
	2								Reducing

[1] If components are added which are not listed in the table, the mixed gas is designated the letter “S” as a special gas. Details on designation S can be found in Section 4 of our Welding consumables manual.

[2] Argon can be replaced up to 95% by helium. The helium content is indicated with an additional index number according to Table 5 of our Welding consumables manual, see Section 4.