

## REFERENCE MATERIALS FOR GAS ANALYSIS

(Japanese manufacturer)

### HYDROGEN IN STEEL

Product No.	H (ppm)	Form	Unit Size
SS-5	6.5-8	10g rod (φ4mm×100mm)	10 pcs
JSM M 481	0.7-1.0	1g ball	100pcs
JSM M 482	6.0	1g pin	100pcs
HYDRO-0.5C	0.095	1g pin	100pcs
HYDRO-1D	1.48	1g pin	100pcs
HYDRO-2C	2.35	1g pin	100pcs
HYDRO-3A	3.26	1g pin	100pcs
HYDRO-4A	4.52	1g pin	100pcs
HYDRO-5A	5.02	1g pin	100pcs
HYDRO-6A	6.62	1g pin	100pcs

### OXYGEN IN STEEL

Product No.	O (ppm)	Form	Unit Size
NS 17 series (In preparation)	-	0.5g pin	100 pcs
JSAC 0111	2.3	φ32mm×30mm	

### NITROGEN/OXYGEN IN STEEL PINS

Product No.	N (ppm)	O (ppm)	Form	Unit Size
SS-2	10-20	90-110	1.0g pin	100 pcs
SS-3	55-70	165-185	1.0g pin	100 pcs
SS-4	135-145	10-15	1.0g pin	100 pcs
SS-10	10-20	450-550	0.5g pin	100 pcs
JSM M 401-*	55	7	0.5g pin	100 pcs
JSM M 402-*	130	180	1g pin	100 pcs
JSM M 403-*	-	1200	1g pin	100 pcs
HORIBA CRM 1602-1A (CRM ISO17034)	430	54	1g pin	100pcs

\*) The content varies by lot.

**CARBON/SULFUR**

Product No.	C (%)	S (%)	Form	Unit Size
JSM M 451-1	0.93	0.0096	Grain	150g
JSM M 452-1	2.78	0.0110	Grain	150g
JSM M 453-1	3.20	0.0136	Grain	150g
JSM M 454-1	3.73	0.0298	Grain	150g
JSM M 455-1	3.85	0.112	Grain	150g
JSM M 456-1	4.91	0.0148	Grain	150g
JSM M 461-1	0.44	0.016	1g pin	100g
JSM M 462-1	0.30	0.17	0.49g pin	49g
JSM M 463-1	-	0.020	0.74g pin	74g
HCS-002	1.014	0.124	Chip	100g
HORIBA CRM 1603-1A (CRM ISO17034)	0.072	0.198	1g pin	100pcs

**CARBON/SULFUR/OXYGEN/NITROGEN**

Product No.	C (%)	S (%)	O (%)	N (%)	Unit Size
HOCS-002	0.0004	0.0010	0.0228	0.0004	100 pcs
	Form: 1g pin				
HNCS-001	0.0102	0.0038	-	0.0436	100 pcs
	Form: 1g pin				
HNOCS-001A	0.0481	0.0240	0.0052	0.0855	100 pcs
	Form: 1.1g pin				
LCSON-001 series (In preparation)	-	-	-	-	100 pcs
	Form: 1g pin				
LCSN-003A	0.0020	0.0013	-	0.0005	100g
	Form: Chip				
HORIBA CRM 1601-1 (CRM ISO17034)	0.0602	0.545	-	0.0082	100g
	Form: Chip				

**OXYGEN/NITROGEN/HYDROGEN IN TITAN**

Product No.	O (%)	N (%)	H (%)	-	Unit Size
P·Ti-50-001	0.0740	0.0024	0.0023	-	100 pcs
	Form: 0.1g pin				
P·Ti-70-001	0.179	0.0022	0.0024	-	100 pcs
	Form: 0.1g pin				
Ti·Alloy-64-001	0.150	0.0042	-	-	100 pcs
	Form: 0.1g pin				

NOTE: Values listed are nominal and depend on the lot.