

ISO 13678:2009-05 (E)

Petroleum and natural gas industries - Evaluation and testing of thread compounds for use with casing, tubing, line pipe and drill stem elements

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Conformance	1
2.1	Dual citing of normative references	1
2.2	Units of measurement	1
3	Normative references	2
4	Terms and definitions	3
5	Thread compound characteristics	4
5.1	Product characteristics	4
5.2	Physical and chemical characteristics	5
6	Thread compound performance properties	9
6.1	Small-scale test	9
6.2	Frictional properties	9
6.3	Extreme surface-contact pressure (gall resistance) properties for casing, tubing and line pipe	10
6.4	Fluid sealing properties for casing, tubing and line pipe	11
7	Quality assurance and control	11
8	Marking requirements	12
8.1	Marking	12
8.2	Labelling	12
Annex A (informative) API modified thread compound		13
Annex B (normative) Casing, tubing and line pipe reference standard formulation		17
Annex C (normative) Penetration test		19
Annex D (normative) Evaporation test		20
Annex E (normative) Oil separation test		21
Annex F (normative) Application/adherence test		22
Annex G (normative) Gas evolution test		23
Annex H (normative) Water leaching test		27
Annex I (informative) Frictional properties test		30
Annex J (informative) Extreme surface-contact pressure (galling) test for casing, tubing and line pipe		40

Annex K (informative) Fluid sealing test for casing, tubing and line pipe	41
Annex L (informative) Corrosion inhibition tests	44
Annex M (informative) Compound high-temperature stability test	45
Bibliography	46