

ISO/PAS 13146:2024-11 (E)

Road vehicles - Brake lining friction materials - Drag mode friction test for hydraulic and pneumatic vehicle brakes

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	2
5	Test conditions	2
5.1	Test equipment and parts	2
5.2	Requirement	2
5.3	Brake temperature measurement	3
6	Test type	4
7	Method A: Brake lining assemblies for vehicles of categories M1, M2, N1, O1, O2 and L	4
7.1	General	4
7.2	Determination of test pressure and torque	4
7.2.1	Determination of test pressure and torque of the original sample method	4
7.2.2	Determination of test pressure and torque of the sampling method	5
7.3	Brake rotor and brake caliper conditions	5
7.4	Sample preparation	5
7.4.1	Sample preparation of the original sample method	5
7.4.2	Sample preparation of the sampling method	6
7.5	Thickness and mass measurement	6
7.6	Test procedure	6
7.6.1	Test procedure 1: Constant torque mode	6
7.6.2	Test procedure 2: Constant pressure mode	7
7.7	Evaluation of test results	8
7.7.1	General	8
7.7.2	Cold coefficients of friction and coefficients of friction during normal operation	8
7.7.3	Minimum, maximum and fading coefficients of friction	10
8	Method B: Rotor and drum brake lining assemblies for vehicles of categories M3, N2, N3, O3 and O4	12
8.1	General	12
8.2	Determination of test pressure for sampling method	13
8.3	Brake rotor and brake caliper conditions for the sampling method	13
8.4	Sample preparation	13
8.5	Thickness and mass measurement	13
8.6	Test procedure	13
8.7	Evaluation of test results	14
9	Test report	15
Annex A (normative)	Test bench	16
Annex B (informative)	Effective friction radius (reff)	17
Annex C (normative)	Brake torque	18
Annex D (informative)	Templates	29