

# ISO 4645:2022-05 (E)

## Rubber and rubber products - Identification of antidegradants - Thin layer chromatographic methods

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
1	Scope .....	1
2	Normative references .....	1
3	Terms and definitions .....	1
4	Principle .....	1
5	Reagents .....	2
6	Apparatus .....	4
7	Preparation of developing tank and plates .....	5
7.1	Preparation of developing tank .....	5
7.2	Preparation of plates .....	5
7.3	Preparation of pre-coated plates .....	6
8	Preparation of test portion .....	6
9	Plate spotting .....	6
9.1	General .....	6
9.2	Quantity of solution to apply .....	6
9.3	Spotting technique .....	6
10	Plate development .....	7
10.1	Method A .....	7
10.2	Method B .....	7
11	Colour development on the plate .....	7
12	Expression of results .....	7
12.1	Method A .....	7
12.1.1	For amine type antidegradants .....	7
12.1.2	For phenolic type antidegradants .....	8
12.2	Method B .....	8
12.3	Confirmation tests .....	8
13	Standard chromatograms .....	8
14	Test report .....	9
Annex A (informative) Preliminary spot tests .....		10
Annex B (informative) Example procedure when oil is present .....		12