

ISO/TR 19032:2019-09 (E)

Plastics - Use of polyethylene reference specimens (PERS) for monitoring laboratory and outdoor weathering conditions

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Background information	1
5	Material	1
5.1	General	1
5.2	Preparation of PERS	2
6	Procedure	2
6.1	Method for measuring the carbonyl index of PERS	2
6.2	Round robin test of laboratory light-source exposure devices with PERS	3
6.2.1	General	3
6.2.2	Xenon-arc-lamp exposure	3
6.2.3	Open-flame carbon-arc-lamp exposure	4
6.2.4	Fluorescence lamp exposure	4
6.3	Outdoor exposure test of PERS	4
6.4	Consistency of laboratory light-source exposure devices	5
7	Results and discussion	6
7.1	Result of RRT of laboratory light-source exposure devices with PERS	6
7.1.1	Xenon-arc-lamp exposure	6
7.1.2	Open-flame carbon-arc-lamp exposure	10
7.1.3	Fluorescent lamp exposure	10
7.2	Characterizing the conditions of outdoor exposure test site	11
7.3	Examples of correlation between outdoor exposure test and laboratory light- source exposure test using PERS	12
7.4	Control limit of particular laboratory light-source exposure apparatus	13
8	Conclusion	14
8.1	Results of RRT	14
8.2	Outdoor exposure of PERS	15
8.3	Correlation between outdoor and xenon-arc-lamp exposure for PERS	15
8.4	Consistency of laboratory light-source exposure devices	15
Bibliography		16