ISO 16691:2014-02 (E)

Space systems - Thermal control coatings for spacecraft - General requirements

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms,definitions,andabbreviatedterms 1
3.1 Terms and definitions 1
3.2 Abbreviated terms 4

4 General 4
4.1 Functionality 5
4.2 Basic components 6

5 Selection 6

6 Test methods for TCC 8
6.1 Visual inspection 8
6.2 Coating thickness 8
6.3 Adhesion 8
6.4 Thermo-optical properties 8
6.5 Resistance (electrical surface resistance and electrical volume resistivity) 10
6.6 Outgassing 10
6.7 UV-resistance 11
6.8 Radiation resistance 11
6.9 tomic oxygen resistance 11
6.10 Gloss 11
6.11 Temperature cycling (influence of temperatures) 11
6.12 Mass of ejecta 11

7 Requirements for application 11

8 Safety requirements for TCC application 12

9 Identification 12

10 Protectors 12

11 Packing 13

12 Production program of quality assurance 13
12.1 General 13

13 Changes and revisions 13
13.1 Permissive document 13
13.2 Necessary signatures for the confirmatory document 14
13.3 Record of changes 14

Annex A (informative) General properties of TCC-I and TCC-II 15

Bibliography 17