

DIN SPEC 91446:2021-12 (E)

Classification of recycled plastics by Data Quality Levels for use and (digital) trading; Text in English

| Contents | Page |
|---|-------------|
| Foreword | 4 |
| Introduction..... | 6 |
| 1 Scope..... | 7 |
| 2 Normative references | 7 |
| 3 Terms and definitions..... | 7 |
| 4 Symbols and abbreviations..... | 12 |
| 5 Data Quality Levels (DQL) for recyclates | 12 |
| 5.1 General..... | 12 |
| 5.2 Introduction of the Data Quality Levels (DQL)..... | 13 |
| 5.3 Application-specific DQL..... | 13 |
| 5.4 Further explanation for optional characteristics | 14 |
| 5.4.1 Filler content..... | 14 |
| 5.4.2 Content of contaminants in the plastic waste feedstock for recycling..... | 14 |
| 5.4.3 Additives | 14 |
| 5.4.4 Further details recycling process..... | 14 |
| 5.4.5 Traceability | 14 |
| 5.4.6 Recyclability..... | 14 |
| 5.4.7 CO ₂ equivalents | 14 |
| 5.5 Sampling and sample preparation..... | 14 |
| 5.5.1 General..... | 14 |
| 5.5.2 Minimum requirements for sampling and sample preparation | 15 |
| 5.6 Determination of the property tolerances..... | 15 |
| 6 Identification of recycled content | 15 |
| 6.1 Labelling..... | 15 |
| 6.2 Determination of recycled content..... | 17 |
| 6.3 Technical documentation: Product Data Sheet (PDS) | 20 |
| Annex A (normative) Requirements for the individual DQLs | 22 |
| Annex B (informative) Examples for technical documentation (PDS) | 25 |
| B.1 Example for a Product Data Sheet (DQL: 1) | 25 |
| B.2 Example for a Product Data Sheet (DQL: 2) | 25 |
| B.3 Example for a Product Data Sheet (DQL: 3) | 26 |
| B.4 Example for a Product Data Sheet (DQL: 4), incl. optional characteristics..... | 28 |
| B.5 Example for further information to provide | 30 |
| Annex C (informative) Guidance for the characterization of plastic waste as feedstock for plastics recycling | 31 |
| C.1 Recommended characteristics of plastic waste feedstock for recycling | 31 |
| C.2 Additional characteristics of plastic waste feedstock for recycling..... | 31 |
| C.3 Sampling for the determination of properties of plastic waste as feedstock for recycling..... | 32 |
| Bibliography..... | 34 |

Figures

Figure 1 — Illustration of terms (based on a figure drafted by IKK) 8
Figure 2 — Label 16

Tables

Table 1 — DQLs per required information, properties and optional characteristics 13
Table 2 — Label description..... 17
Table 3 — Calculation table for example 1 18
Table 4 — Calculation table for example 2 18
Table 5 — Calculation table for example 3 19
Table 6 — Calculation table for example 4 20
Table 7 — Calculation table for example 5 20
Table 8 — Material status information (optional)..... 21
Table A.1 — Information (I) 22
Table A.2 — Properties (P) 23
Table A.3 — Optional characteristics (O)..... 23
Table B.1 — Material status..... 25
Table B.2 — Material status..... 26
Table B.3 — Typical properties..... 26
Table B.4 — Material status..... 27
Table B.5 — Typical properties..... 27
Table B.6 — Material status..... 28
Table B.7 — Typical properties..... 29
Table C.1 — Waste Characterization Sheet..... 32