

# ISO/IEC 29142-1:2021-08 (E)

## Information technology - Print cartridge characterization - Part 1: General: terms, symbols, notations and cartridge characterization framework

---

<b>Contents</b>		<b>Page</b>
	<b>Foreword</b> .....	<b>iv</b>
	<b>Introduction</b> .....	<b>v</b>
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Terms and definitions</b> .....	<b>1</b>
<b>4</b>	<b>Requirements</b> .....	<b>8</b>
<b>5</b>	<b>Structure of the ISO/IEC 29142 series</b> .....	<b>8</b>
	5.1 Data reporting.....	8
	5.2 Environmental.....	8
	5.3 Toner and ink cartridge characterization.....	9
<b>6</b>	<b>Framework overview for cartridge characterization</b> .....	<b>9</b>
	6.1 Elements of a print system.....	9
	6.2 Cartridge configurations.....	10
	6.3 Performance attributes measured on a printed page.....	10
	6.4 Physical attributes.....	11
<b>7</b>	<b>Attribute framework for testing and characterizing cartridges</b> .....	<b>11</b>
	7.1 Overview.....	11
	7.2 Special considerations for binomial and continuous performance point attributes.....	13
	7.3 Special considerations for point and lifetime binomial attributes.....	13
	7.4 Special considerations for performance testing with page-attribute values.....	13
	7.5 Test requirements for all attributes.....	16
	7.5.1 Set-up.....	16
	7.5.2 Sample size for continuous attributes.....	16
	7.5.3 Sample size for binomial attributes.....	16
	7.5.4 Additional cartridge sampling considerations.....	17
	7.5.5 Print and test environment.....	17
	7.5.6 Paper.....	18
	7.5.7 Maintenance.....	18
	7.5.8 Test chart files.....	18
	7.6 Test methodology for lifetime and point attributes.....	19
	7.6.1 Sample interval for printing test charts.....	19
	7.6.2 Test sample frequency calculation for attributes tested in a life test process.....	20
	7.6.3 Testing procedure.....	20
	7.6.4 Conditioning and measurement of test chart components for page-attribute values.....	20
	7.6.5 Procedure for handling a defective cartridge or printer.....	22
<b>8</b>	<b>Framework requirements for determination of declared attribute values</b> .....	<b>22</b>
	8.1 Determination of the declared value for continuous lifetime or continuous physical attributes.....	22
	8.2 Determination of the declared value for continuous point attributes.....	23
	8.3 Determination of the declared value for lifetime, point and physical binomial attributes.....	25
<b>9</b>	<b>Framework requirements for reporting cartridge-characterization results</b> .....	<b>25</b>
	<b>Annex A (informative) Terms cross-reference</b> .....	<b>26</b>
	<b>Bibliography</b> .....	<b>29</b>