

# DCI PACKAGING SPECIFICATION

<b>SUBJECT:</b> INCOMING MATERIAL PACKAGING SPECIFICATION FOR ROLL GOODS	<b>REVISION:</b> 04	<b>NUMBER:</b> MFG-P-010 <b>ISSUE DATE:</b> 12/09/02 <b>PAGE:</b> 1 OF 3
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## 1.0 SCOPE:

- 1.1 **PURPOSE:** To define the minimum requirements of roll good products that are supplied to any Donaldson Disk Drive manufacturing plant.
- 1.2 **APPLICABILITY:** This procedure applies to all companies who supply product to any Donaldson Disk Drive Manufacturing facility.

\*As a general guideline, this document should be used in conjunction with:

- 1.2.1 The applicable Donaldson Engineering (EN) standard
- 1.2.2 The purchase order
- 1.2.3 Other reference documents

## 2.0 DEFINITIONS/ABBREVIATIONS:

- 2.1 DHS = Dynamic Headspace Analysis
- 2.2 IC = Ion Chromatography
- 2.3 NVR = Nonvolatile Residue
- 2.4 EN = Engineering
- 2.5 PO = Donaldson Purchase Order

## 3.0 APPLICABLE FORMS AND DOCUMENTS:

- 3.1 Applicable engineering (EN) standards
- 3.2 IDEMA M7-98 Organic Contamination as NVR
- 3.3 IDEMA M13-99 Measurement of Extractable/Leachable anion contamination level on driver components by IC
- 3.4 IDEMA M10-98 Special Cation Analysis IC
- 3.5 IDEMA M11-99 General outgas test procedure by DHS

## 4.0 GENERAL SUPPLIER QUALITY SYSTEM REQUIREMENTS:

- 4.1 The supplier must demonstrate an effective quality system capable of ensuring that the product can effectively meet Donaldson's quality requirements and the respective material specifications from the manufacturer. This may include the following:

- \* ISO 9000 Certification
- \* Requirements as specified in the EN standard
- \* Requirements as specified in this specification
- \* Contamination Control (Cleanliness) requirements as specified in the EN standard
- \* Full traceability from the end product lot number as received by Donaldson
- \* An effective calibration and maintenance system that ensures the facilities, equipment and tooling used in supplying product data to Donaldson are in proper condition to produce and measure product. Relevant records should be available to prove this implementation.

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- 4.2 It is the supplier's responsibility to verify the requirements as specified on the purchase order. This should include material numbers, labels and appropriate specifications. If discrepancies are found they must be resolved with the facility requesting the material, prior to acceptance.
- 4.3 All process changes that could affect end product dimensions, performance, or cleanliness must be approved **prior to** making the change. **Note: Process changes, no matter how subtle, can have significant impact to Donaldson's process or end product. However, Donaldson recognizes that process changes, as defined below, are an essential part of continuous improvement. The supplier is therefore encouraged to engage Donaldson in all process changes required to improve product quality, reliability and cost.** A process change includes but is not limited to the following:
- \* Direct or indirect material changes such as raw material supplier, final packaging material, gloves, bags, etc...
  - \* Changes to process parameters that could affect end product dimensions, performance or cleanliness.
  - \* Addition or removal of a process step
  - \* Tooling modifications

## 5.0 GENERAL PACKAGING AND LABELING REQUIREMENTS:

- 5.1 Unless otherwise stated in the EN standard, the maximum roll diameter or roll length will be specified on the PO.
- 5.2 Maximum allowable telescoping (or runout) of rolls is to be less than 1/32" on all roll goods.
- 5.3 Standard slit width tolerances are +/- 1/32". Refer to the PO for the nominal slit width and any deviation from this tolerance.
- 5.4 All materials received by Donaldson are used inside of a cleanroom. In complying with standard cleanroom protocol and to avoid contamination, we require all suppliers to follow these practices:
- \* Provide products with clean-cut edges.
  - \* Supply all products on non-shedding 3.0" ID plastic cores, unless specified differently on the PO.
  - \* Double bag/wrap all product in bags/plastic that are thick enough to prevent damage during shipment and effectively prevent particle and/or chemical contamination
  - \* Use packaging bags/wrap that is free of silicone and other chemical or particle contaminants.
- 5.5 The shipment should be packaged and wrapped in such a way to prevent damage from top loading or reasonable shipping shock and vibration.
- 5.6 Labels should be placed on the external box, the outside of every inner bag, and inside the core of every roll. These labels should contain the following:
- \* PO # \*
  - \* Donaldson Part Number \*
  - \* Lot Number \*
  - \* Slit/Cut/Roll Number
  - \* Slit/Cut/Roll Width

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- \* Roll length in the Donaldson specified unit of measure\*
- \* Donaldson Material Specification Number (EN#)
- \* Product Name/Description \*
- \* Wound In/Out designation (for double sided adhesives only) \*

**Note:** *If all of the above requested information cannot be put on the label, please include those items containing a \* after them as the minimum required fields.*

## 6.0 SHIPPING DOCUMENTATION:

6.1 The following documents should accompany all shipments:

- \* A packing list that contains the PO#, supplier lot#, length of rolls (in feet) and quantity of rolls
- \* A certificate of analysis which again lists the PO#, lot #, and includes the results of the tests as defined in the EN standard

## 6.0 REVISION HISTORY:

Original release, rev 1: 12/9/02

Revision 2: 6/9/03 – added roll length as a minimum requirement; changed from 410.601.001 to new doc control format

Revision 3: 8/12/04 – added 5.2 regarding telescoping – renumbered remainder of document accordingly.

Revision 4: 5/9/07 – changed section 1.1; revised scope so that document is applicable world wide, rather than just in the US at P79.