



## Test Report

No. 3405834-CH01

Date: January 24, 2014

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**E I Dupont De Nemours & Co.,Inc.**  
**Chestnut Run Plaza,**  
**Po Box 80713,**  
**Wilmington,**  
**De 19880 USA**

The following sample(s) was/were submitted  
and identified by/on behalf of the client as:

**DuPont™ Polyamide 66 resin Zytel® 70G33L**  
**Color: BK031**

Sample Received Date:

**1/16/2014**

Testing Period:

**1/18/2014 – 1/23/2014**

Test Requested : Please refer to the result summary.

Test Method & Results : Please refer to next page(s).

Result Summary :

| Test Requested  | Comment |
|---|---------|
| European Directive 2011/65/EU Annex II (RoHS); recasting 2002/95/EC | PASS    |

Signed for and on behalf of SGS North America

Prepared By:

Sandip Ramolia  
Chemist, Chemistry Laboratory

Kamille Valero  
Laboratory Coordinator, Chemistry Laboratory

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### 1. European Directive 2011/65/EU Annex II (RoHS); recasting 2002/95/EC:

Cadmium, Lead, Mercury, Hexavalent Chromium, Polybromobiphenyl (PBB) and Polybromodiphenyl ether (PBDE) content

Method : With reference to IEC 62321-5:2013. Lead, Cadmium and Mercury were analyzed by Inductively Coupled Argon Plasma Spectrometry, Chromium (VI) was analyzed by UV-Visible Spectroscopy and PBB, PBDE were analyzed by Gas Chromatography – Mass Spectrometry (GC-MS).

| Test Item                    | Result (mg/kg) |  | Detection Limit (mg/kg) | Permissible Limit (mg/kg) |
|------------------------------|----------------|--|-------------------------|---------------------------|
|                              | 1              |  |                         |                           |
| Cadmium (Cd)                 | ND             |  | 2                       | 100                       |
| Lead (Pb)                    | ND             |  | 2                       | 1000                      |
| Mercury (Hg)                 | ND             |  | 2                       | 1000                      |
| Hexavalent Chromium (Cr(VI)) | ND*            |  | 2                       | 1000                      |
| Sum of PBBs                  | ND             |  | —                       | 1000                      |
| Monobromobiphenyl            | ND             |  | 5                       | --                        |
| Dibromobiphenyl              | ND             |  | 5                       | --                        |
| Tribromobiphenyl             | ND             |  | 5                       | --                        |
| Tetrabromobiphenyl           | ND             |  | 5                       | --                        |
| Pentabromobiphenyl           | ND             |  | 5                       | --                        |
| Hexabromobiphenyl            | ND             |  | 5                       | --                        |
| Heptabromobiphenyl           | ND             |  | 5                       | --                        |
| Octabromobiphenyl            | ND             |  | 5                       | --                        |
| Nonabromobiphenyl            | ND             |  | 5                       | --                        |
| Decabromobiphenyl            | ND             |  | 5                       | --                        |
| Sum of PBDEs                 | ND             |  | —                       | 1000                      |
| Monobromodiphenyl ether      | ND             |  | 5                       | --                        |
| Dibromodiphenyl ether        | ND             |  | 5                       | --                        |
| Tribromodiphenyl ether       | ND             |  | 5                       | --                        |
| Tetrabromodiphenyl ether     | ND             |  | 5                       | --                        |
| Pentabromodiphenyl ether     | ND             |  | 5                       | --                        |
| Hexabromodiphenyl ether      | ND             |  | 5                       | --                        |
| Heptabromodiphenyl ether     | ND             |  | 5                       | --                        |
| Octabromodiphenyl ether      | ND             |  | 5                       | --                        |
| Nonabromodiphenyl ether      | ND             |  | 5                       | --                        |
| Decabromodiphenyl ether      | ND             |  | 5                       | --                        |
| Comment                      | PASS           |  | —                       | --                        |

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### Sample Description:

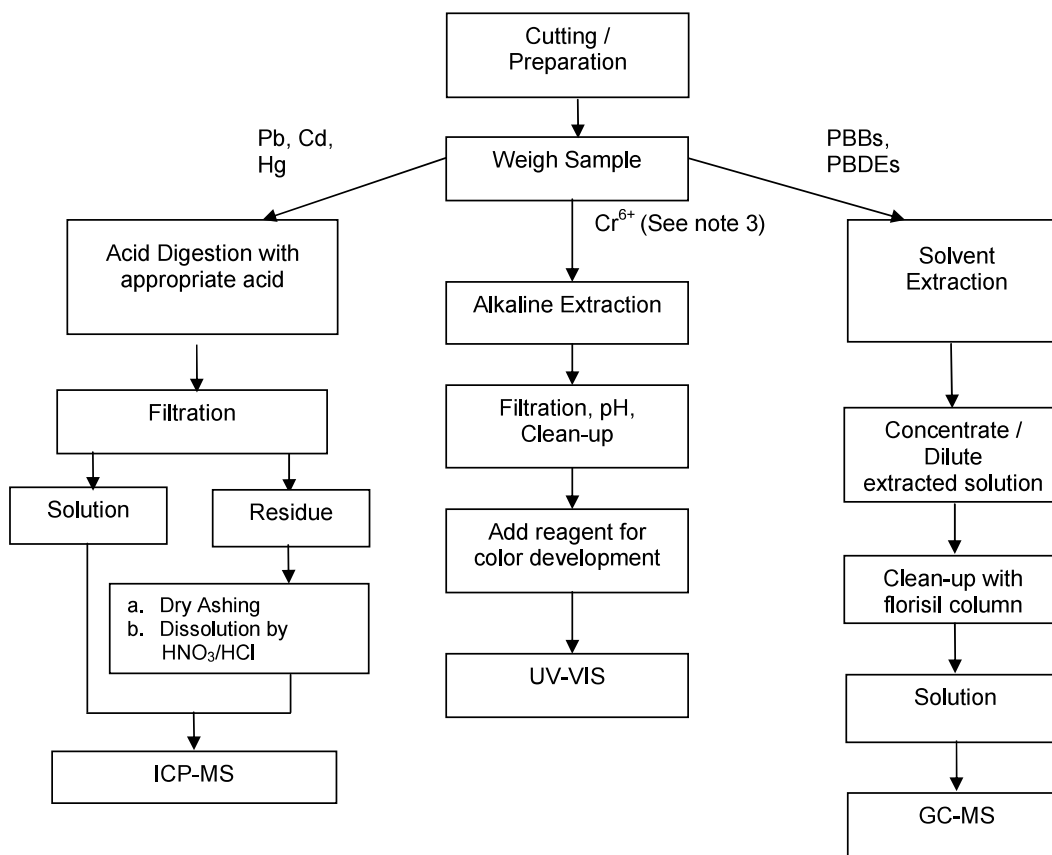
1. **Black plastic grains**

*\*Total Chromium analysis by ICP-MS was not detected in submitted sample. Therefore, Hexavalent Chromium determination using UV-Visible Spectroscopy was not performed.*

### Note :

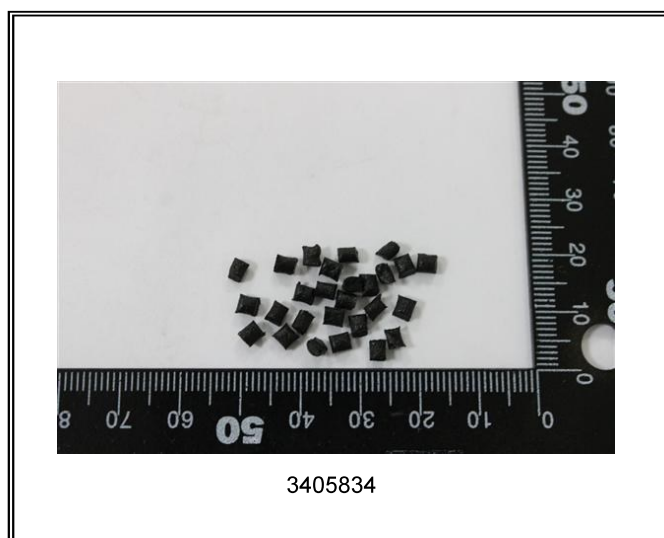
1. ND = Not Detected = denoted less than reporting limit

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**Flowchart for RoHS:**


- Note :
1. For Cr(VI), spot test is adopted for metal sample.
  2. The Cd, Pb and Hg contents test on polymeric samples were dissolved totally by pre-conditioning method according to above flow chart.
  3. Cr<sup>6+</sup> is performed only when total Cr is detected

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**Sample Photo:**


SGS authenticates the photo on the original report only

\*\*\* End of Report \*\*\*

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