

Preferred Design Recognition Review Program

Complete Label Constructions on Color HDPE and PP Containers Made Subject Application Instructions

Introduction

Application Instructions are specific to each application topic (design feature and container type) that is within the scope of the Preferred Design Recognition Review Program, the PDR Program. Application Instructions detail the information that must be submitted to the APR in application for an PDR Recognition Review. Information must be submitted on the [Submission Portal](#) found on the APR website.

The following label styles for mixed color HDPE and PP containers packaging are candidates for PDR review:

- Film labels employed for:
 - Wrap-around labels
 - Cut and stack labels
 - Pressure sensitive labels
 - In-mold labels
 - Shrink or stretch labels

The information given below is applicable to companies that produce finished printed film labels who wish to apply for PDR Recognition. The information can also apply to those who want to confirm that a label on a package Preferred Design Recognition.

Please note:

- Paper labels of any kind are not within scope for PDR review because the APR Design® Guide categorizes paper labels as detrimental to HDPE AND PPrecycling.
- Labels with high surface area coverage require testing results with the application.
- Labels that employ metal decoration require testing results with the application.
- These instructions apply only for mixed color HDPE containers, not those made with natural, unpigmented, HDPE.

Preparation for the application

APR will not ask for, nor require, any confidential composition or end customer information from the applicant.

To complete an application on the [Submission Portal](#), the applicant must be prepared to supply all the information necessary for the PDR Review. Some information will be entered into text boxes, other information will be submitted by uploading documents or files to the APR web site.

- **Company name, address, and logo** – you will be asked to enter the address to be used for any written communications concerning PDR Review. You have the option to upload your company’s logo for use in program materials.
- **Person responsible for this submission** - Name, phone number and email address
- **Signed copy of the Program Agreement and Manufacturing Change and Records Agreement** for the subject. Applicants can download the Agreement from the Submission Portal.
- **IF applying for recognition on Colored HDPE substrates confirm that the label will be market as recognized for use only on color HDPE containers** - Confirm the following statement (your online confirmation will constitute a signed letter): “I hereby certify and understand that labels associated with this application will be employed on color HDPE containers. Labels employed on white or natural HDPE containers will not be marketed as Preferred Design Recognition.”
- **Provide a designation for the printed label** - This designation might be a product family, trade name, or product number that will be used in marketing labels or printed packages that meet criteria of PDR Review and which can be used to trace the combination of ink and label used in the PDR Review.
- **Document the label style employed** – indicate whether the label style is:
 - Wrap-around
 - Cut and stack
 - Pressure sensitive
 - In-mold label
 - Shrink or stretch
- **When a film label is employed, document the nature of the film** – detail whether the film is transparent, opaque from pigment in the film, or cavitated film; these characteristics can impact NIR detection of the HDPE AND PPpackage beneath a high surface area coverage label. Also, provide some general information describing the composition and nature of the film. For example:
 - Olefin based film that floats in water.
 - Co-polyester shrink film that sinks in water.

- Olefin based shrink film that floats in water.
- **Document maximum package surface area coverage of the label technology** – Confirm either of the following statements (your online confirmation will constitute a signed letter):
 - I certify that labels that will be marketed as Preferred Design Recognition will not exceed the surface area guidance called out in the APR Design® Guide, above which, NIR sorting test data is needed.
 - OR
 - I confirm that any labels marketed as Preferred Design Recognition with surface area coverage of a container above that given in the APR Design® Guide will be supported by testing data developed with APR’s SORT-B-01 NIR test to demonstrate that the label is designed to provide positive NIR detection of the HDPE container beneath the label.

Labels with high surface area coverage may interfere with the ability of an NIR optical sorter to positively detect the HDPE container beneath the label. The APR Design® Guide provides guidance for surface area coverage where no testing for NIR optical sorting performance is required. Above these surface area values, it is necessary to support NIR sort performance with test data employing APR’s SORT-B-01 for NIR optical sorting.

The current Guidance APR Guidance for Preferred surface area coverage is::

- For containers with a brimful volume of 550 ml or less, the surface area coverage of the label is no more than 55%, and no metal decoration is employed on the label.
- For containers with a brimful volume of over 550 ml, the surface area coverage is no more than 70%, and no metal decoration is employed on the label.
- **Provide NIR sorting documentation (when necessary)** – Any test reports may be combined into a single document to be up-loaded on the application portal. Some recommendations on the testing that is desirable are given below.

If the supplier would like to market labels that exceed the surface area guidance criteria given in the APR Design® Guide as Meeting Preferred Guidance, it is necessary to submit technical reports demonstrating that printed labels on packages meet NIR sorting criteria given in SORT-B-01. When submitting Sort test results, here are aspects that will be considered in the PDR Review:

- Any data provided will be specific for the film type and description: clear, pigmented, or cavitated. Data collected on one film type does not support good results on another film type.
- A “generic label” made with a mix of different printing inks may be tested for NIR sort performance, and successful test results can support that labels made with the mix of inks used in the generic label will meet preferred guidance.
- Labels that are predominantly dark in color, L value less than 40, or black in color, should be tested by SORT-B-01 before being marketed as Preferred Design Recognition.

This is because carbon black pigment strongly absorbs NIR energy and is known to interfere with NIR optical sorting.

- Labels that employ a printed white base coat should be tested to support NIR sort capability. TiO₂ white pigment scatters NIR energy and may interfere with NIR detection.
 - Labels that employ use of metals decoration greater than the 55% or 70% label surface areas given in APR guidance should be tested because metals reflect NIR energy and can interfere with NIR sorting results.
- **Metal decoration documentation** - The applicant's intentions concerning use of metal decoration on labels must be documented. Metal decoration on a label suitable for Preferred Design Recognition is the use of vacuum deposited metal films or inks with metal flake pigments. The supplier must submit one of the following:
 1. Confirm the following statement (your online confirmation will constitute a signed letter): I hereby certify and understand that labels associated with this application will not employ metal decoration. Labels with metal decoration will not be marketed as Preferred Design Recognition.
 2. A laboratory report showing that intended designs meet the "preferred" category presented in the SORT-B-03 test used to assess impact of metals on metal detectors.
 3. In anticipation of change in guidance for metal containing labels: A letter specifying how the applicant label meets current guidance
 - **Supplemental laboratory report (when necessary)** - When testing was conducted at a laboratory that is new to the APR, a supplemental report is necessary. In other words, any new laboratory generating data for the APR's Preferred Design Recognition Review must provide a supplemental report. This supplemental report details in writing and with photographs the testing practices, procedures and equipment that were employed. The review committee will use this supplemental report to confirm testing was completed as detailed in the required APR Practices and Test Methods. The PDR Program Administrator can confirm whether a supplemental report is required should there be any question.