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TO: North American Customers for Plenco Molding Materials

RE: REACH

This memorandum has been prepared as a standard response to questions we receive from our molding material customers about our plans and activities regarding REACH, the new chemical registration program of the European Community.

As regards REACH, we believe that in virtually all cases, neither we nor our North American molding material customers will have any obligation to take any action. In drawing that conclusion, we have made the following assumptions:

- We assume that you are using our molding materials as sold to you and are not adding any additional substances to them.
- We assume you are actually molding our materials in North America, not shipping them unmolded to Europe.
- We assume you are using our materials to produce a molded part in a conventional manner, as opposed to using it in some other way.

Given the above assumptions, we believe neither you nor we have any obligations under REACH if the molded parts are shipped to Europe. The obligations under REACH apply to manufacturers or importers in Europe of chemical substances or mixtures (called “preparations”), and in limited circumstances to manufacturers or importers in Europe of “articles”. The definition of “article” and information on how to find more guidance on the subject of REACH and articles, is attached. Based on our review of this information, we believe that parts you make from our materials under the assumptions listed above will be considered “articles” under REACH.

An importer of articles into Europe has responsibilities under REACH only in two circumstances:

- 1) if the articles contain a “Substance of Very High Concern (“SVHC”) above a specified threshold (usually 1/10 of 1%); or
- 2) if the articles have an “intended release” of a substance from them (there is a 1 ton per year threshold).

As far as SVHC's, none of them are expected to be present above a concentration of 0.1% in articles molded from Plenco's molding materials, and therefore under the assumptions above, we believe you certainly can conclude that your molded parts do not contain any in excess of the specified thresholds. A definition of REACH SVHC's is attached for your information.

As far as "intended release", we attach information on that issue from Appendix 1 of the Guidance on requirements for substances in articles. A review of that information, especially the listed examples of releases that are not considered intended (wear and tear, frictional erosion, combustion, accident, etc.) leads us to conclude that virtually all parts molded of our materials under the assumptions above would not have an accompanying "intended release".

As a result, we believe any importer of parts molded from our materials will be free from obligations under REACH.

If, after reviewing this memo, you find that the assumptions above are not true (for example, if you are shipping molding materials into Europe), please let us know; we may be able to offer additional thoughts or help.

Plastics Engineering Company

Guidance on REACH

REACH guidance documents can be obtained via the website of the European Chemicals Agency (http://echa.europa.eu/reach_en.asp).

The following are excerpts from the Guidance on requirements for substances in articles:

P. 21

3 DECIDING WHAT IS AN ARTICLE UNDER REACH

"Article means an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition;" (REACH, Article 3(3)).

P. 67 (Appendix 1)

Intended release

Explanation

The requirements in Article 7(1) relate to substances (as such or in preparations) that are intended to be released under normal or reasonably foreseeable conditions during the service life of the articles. Both conditions, intended release and normal or reasonably foreseeable conditions of use, must be met before registration requirements under Article 7(1) can be triggered. As a general rule, the intention of the article producer in relation to the release of the substance is relevant. The question "Is it wanted that a substance/preparation is released from the article during its normal and reasonably foreseeable use because this is necessary for it to fulfil a certain function of the article?" should be answered with yes. Intended releases are deliberately planned and have a specific function for the article, which is frequently not the main but an accessory function of the object. A release of substances from articles is intended³⁶ when:

- The release contributes to a (accessory) function of the article, or, in other words the, release contributes to the 'added value' of the article, which is not directly connected to the end use function. If the release would not happen, that function could not be fulfilled.

Example: Intended release in this sense is: Release of perfume from a perfumed eraser (function = to erase, added value / function for convenience = quality to smell good).

A release is not considered to be an intended³⁶ release in the following cases:

- A release occurs during removal of 'impurities' from a semi-finished or finished article during its production process (before marketing as a finished article).

Example: A size is added to a fabric to improve its process ability. Sizes are released during further wet processing of the textile

- A release occurs during use or maintenance of the article and is meant to improve the product quality in a wide sense or the safety as a side effect but the released substances do not contribute to the function of the article.

Example: Washing of clothes by the consumer where remnants of different chemicals (dye, softener, starch etc.) from processing are removed over some washing cycles

- A release of substances is an unavoidable side-effect of the functioning of the article. Without the release, the article would not work, but the release is not directly intended.

Examples: wear and tear of materials under conditions with high friction, e.g. break linings, tyres

- A release of substances formed during chemical reactions of any kind

Examples: Releases that are unavoidable for achieving the function, like ozone released from copy machines; release of substances from chemicals reactions caused by accidents or product malfunction, such as combustion products from articles catching fire

- A release is incidental, could be forced by undue use or in an accident.

Examples: release of substances from a thermometer which drops and breaks. This also includes any form of misuse and inappropriate use which is not in accordance with the use instructions or functionality, even if it could have been anticipated: A release caused by a longterm, extremely intensive use of e.g. a tool by a consumer, who uses it in disregard of the recommendations in respect of operating time provided in the instructions of use)

³⁶The list is not comprehensive, further situations where releases are intended/not intended are possible.

Definition substances of very high concern (SVHC)

The following substances are considered substances of very high concern:

- Substances meeting the criteria for classification in accordance with Directive 67/548/EEC:
- Carcinogenic category 1 or 2
- Mutagenic category 1 or 2
- Toxic for reproduction category 1 or 2
- Substances which are persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII of REACH
- Substances having endocrine disrupting properties or substances having persistent, bioaccumulative and toxic properties or very persistent and very bioaccumulative properties or any other property giving rise to an equivalent level of concern to those substances listed above.

Explanation

Substances of very high concern (SVHC) are substances, which may cause serious damage to human health or the environment (see above). They may be selected for inclusion in Annex XIV of REACH or the candidate list for inclusion on Annex XIV.