

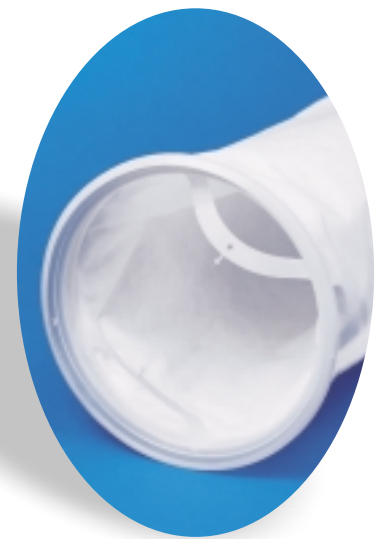


HAYWARD®

manufacturer of



CLEARGAF™



*Assured performance
for food, beverage and
pharmaceutical industries*

Filter Bag Technology

CLEARGAF™ is the **first and only** series of filter bags specifically designed for the requirements of the food, beverage and pharmaceutical industries. Comprised of several filter styles, all **CLEARGAF™** are the **only filter bags** to deliver:

- **Fully FDA Compliant Materials per 21CFR177**
- **Fully EC Compliant per 90/128/EEC**
- **Independent testing and certification**
- **Special packaging and warehouse control**



What is migration from plastics?

Many plastics are made of substances which can diffuse out when in contact with fluids: *migration*. Some polymers which appear to be inert have significant migration, especially into oils or alcoholic fluids. These migrating substances can come from surfaces (e.g., fibre spin finishes) or from within the solid plastic material.

How does it affect filter use?

Most filter components are made from polymers... polyester, polypropylene, polyamide, etc. Migration from a filter material will end up in the fluid passing the media. If this fluid is to be consumed as food, it must be safe for the consumer. So, migration can seriously limit the materials which may be used for filter media.

How can it be stopped?

Migration cannot be completely stopped. It can, however, be reduced by careful selection of polymers. Or, it can be limited to substances which are safe for foods.

What do the regulations say?

Both US (21CFR177) and EC (Directive 90/128/EEC) regulations require that only plastics approved for food use may be used in direct contact. Both regulations maintain 'positive lists' of material which can be used. Both regulations prohibit the use of other materials. Both regulations limit the allowed migration.

What are the differences between FDA and EEC requirements?

All **CLEARGAF™** filter bags are made from FDA-compliant materials. FDA limits on migration are proportional to weight. EC limits, however, are based on area and must be demonstrated in tests on finished articles. For heavy materials, the EC limits can be up to 50x more restrictive. To satisfy EC requirements, some **CLEARGAF™** filters are subject to a small **Minimum Processing Quantity (MPQ)**. In these cases, a minimum amount of fluid (<600 kg) must pass through the bags to dilute migration.

How can I be sure **CLEARGAF™** filter bags satisfy requirements?

All **CLEARGAF™** filter bags have been evaluated, tested and certified for EC migration performance by an independent food research institute.

CLEARGAF™ Features Deliver Advanced Benefits

- ⇒ **Compliant Materials** assure compatibility with all food applications. Sewn bags use special lubricant-free thread.
- ⇒ **Independent Verification** guarantees conformance to EC and FDA requirements
- ⇒ **Low-Migration Media** minimizes substances introduced to fluids
- ⇒ **SENTINEL® Ring Bag Seals** eliminates fluid bypass and assures filtration
- ⇒ **All-Welded Construction** eliminates fluid bypass through needle holes on felt and multi-layer filter bags
- ⇒ **Controlled Production** eliminates contamination with personal hygiene, loose object, pest and dirt controls
- ⇒ **Single Packaging** keeps filters free from contamination during shipping, storage and installation
- ⇒ **Special Handling and Storage** assure that no source of contamination will be introduced after packaging

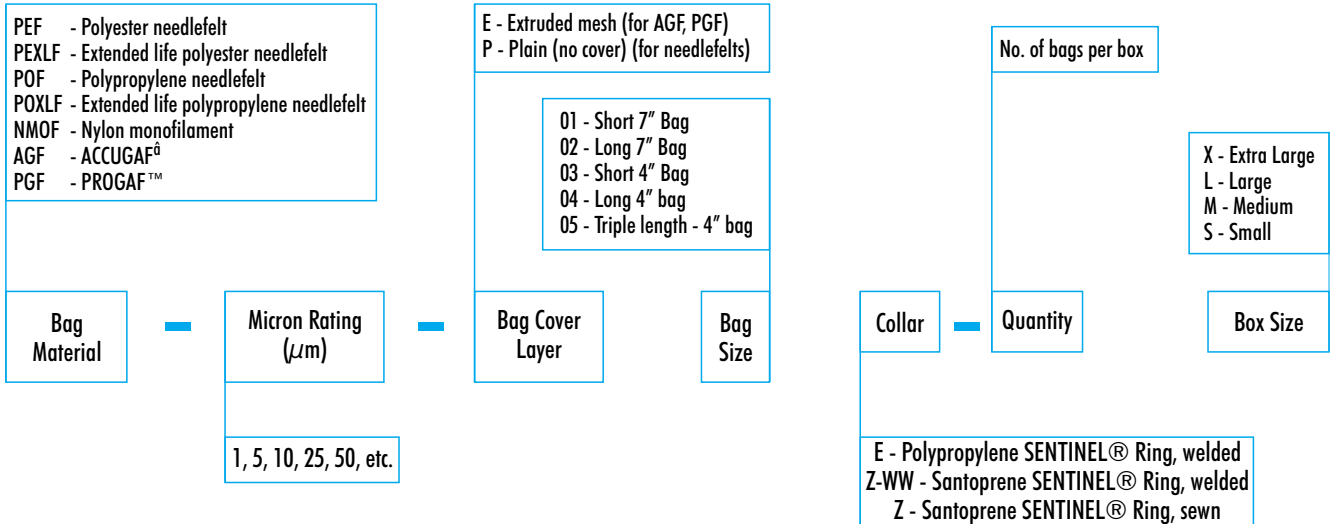
CLEARGAF™ Products



| | Max. Temp. (C) | | Sizes | | | | | Available Grades | | | | | | | | | | | | Ring Style | | |
|---------------|---------------------|-------|-------|----|----|----|----|------------------|------------------------|----|----|----|----|-----|-----|-----|-----|-----|-----|---------------|----------|----------|
| | Fatty | Other | 01 | 02 | 03 | 04 | 05 | 1 | 5 | 10 | 25 | 50 | 80 | 100 | 150 | 200 | 250 | 400 | 600 | | 800 | |
| PEF | 140 | 110 | ● | ● | | | | ● | ● | ● | ● | | | | | | | | | | | Z |
| PEXLF | 140 | 110 | ● | ● | | | | ● | ● | ● | | | | | | | | | | | | Z |
| POF* | 110 | 110 | ● | ● | | | | ● | ● | ● | ● | | | | | | | | | | | E |
| POXLF* | 110 | 110 | ● | ● | | | | | ● | ● | | | | | | | | | | | | E |
| NMOF | 140 | 110 | ● | ● | ● | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | Z |
| AGF* | 110 | 110 | ● | ● | | | | | 51 - 53 - 55 - 57 - 59 | | | | | | | | | | | | E | |
| PGF* | 110 | 110 | | ● | | | | | 49 - 51 - 55 - 57 | | | | | | | | | | | | E | |

*Products subject to MPQ in European applications. See Technical Bulletin T8990801 for full details.

Product Code (e.g. PEF-25-PO1Z-WW-40X):



Bag Label Details

The HAYWARD Industrial Products Label identifies the key features of the product through a batch number. It can be used to trace the flow of the raw material all the way through production to the finished product and by doing so acts as your guarantee of consistent quality.

Item Code }
 Item Description }
 Batch Number }



New Zealand Distributor . . .



4a Bentinck Street, PO Box 15583, New Lynn, Auckland, NZ. Ph: 64 9 826 3486 • 0800 423 477 • Fax 64 9 826 3485
 Email: sales@particlesolutionz.co.nz Website: www.particlesolutionz.co.nz