

NOTES ON COMPLETION OF THIS TECHNICAL ENQUIRY FORM

- 1 This Technical Enquiry Form (TEF) is designed to supply Symphony with the information needed to provide you with the correct additive and Manufacturing Instructions and to minimise the risk of manufacturing problems.
- 2 The choice of additive depends on several factors such as product application and requirements, proposed lifespan, disposal route, processing and conversion. The additive can be formulated to provide a particular degradation response and it is important that you provide the information requested. **Orders for additive without a completed and signed Technical Enquiry Form cannot be processed.**
- 3 **A Technical Enquiry Form must be fully completed for each product application under consideration, if more than one application is being considered, involving different product geometry, materials or process routes, then a separate TEF must be completed detailing each application. Multiple applications on one form will not be accepted.**
4. **If there is at any time any change in the base polymer, or in other materials or processes used, Symphony must be notified and will advise whether a different additive is required.**
- 5 **d₂w Additive will not be warranted for applications, materials or processes not specified in this form and Symphony has no responsibility for components of a finished product other than the d₂w additive.**
- 6 You are advised that the information contained within the additive and all information and know-how disclosed in connection with the additive are proprietary to Symphony and confidential.
- 7 Please type the information into this form on-screen (the boxes will expand as you type), as handwriting may not be easily read. Then print-out, sign on page 4 and give the Form to your local Symphony Distributor. He/she will check it and keep a copy on file and then e-mail it to the relevant Account Manager at Symphony's Head Office as a pdf document.



Symphony's Distributor/Agent: ECO-POLYMERS	Date:
TEF Reference No:	

1. PARTICULARS

Manufacturer:	
Address:	
Contact Name:	
Telephone:	
E-mail:	
Website:	
Converter (if not the same factory):	
Contact Name:	
Telephone:	
E-mail:	Website:

2. APPLICATION

What is the product to be used for? (garbage bags, shopping bags etc)
Product Description (Please provide a <u>detailed</u> description of the finished product including materials, size, product thickness and processing route.)
What is the required storage-life (protected from ultra-violet light and heat)?
Storage conditions (Please provide details of the intended storage and transport conditions of the finished product including temperatures, packaging, timescale, etc.)
What is the required service-life of the product after unpacking?
Is clarity important in the final product?
Is food contact approval a requirement? (please outline any specific requirement or legislation that the product needs to comply with)
Does the product need to meet other recognised Standards? (please give details)
What information is required from the evaluation trials/tests to be conducted with the additive?

Probable Disposal Method(s) (please tick all that apply)

Landfill	Compost	Incineration	Recycling	Don't know
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Symphony Environmental Ltd, Registered in England Number 2967867, a wholly owned subsidiary of Symphony Environmental Technologies Plc.
Registered office: 6 Elstree Gate, Elstree Way, Borehamwood, Hertfordshire WD6 1JD England
Telephone: +44 (0)20 8207 5900 - Facsimile: +44 (0)20 8207 7632 - www.d2w.net - info@d2w.net

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3. MATERIAL

Please provide information on the polymer-composition of the final product

Resin Grade/Supplier <i>(e.g. HDPE, LLDPE, PP etc.)</i>	Material Type <i>(Copolymer/Homopolymer etc.)</i>	Blend Contribution <i>(if applicable)</i>	Density (g/cm ³)	MFI

Will the final product contain recycled material? If so what percentage and from what source? It is important to state whether any and if so what proportion of OXO-BIODEGRADABLE recycled material will be included.

Material Type <i>(Resin)</i>	Source/Origin <i>(Internal, post industrial etc.)</i>	Content (%)

4. OTHER ADDITIVES

Additives can have a very significant effect on the performance of the d₂w™ system. Stabilisers such as antioxidants or UV absorbers in the base film can slow down the degradation response while certain types of pigments can accelerate breakdown. It is important that you provide information on the additives intended to be included in the product since it needs to be considered in specifying the most appropriate d₂w additive for the final product

	Type	Content (%)
Mineral Filler (e.g. Chalk/Talc etc.)		
Colour pigment (e.g. Titanium Dioxide/ Carbon Black)		
UV Absorber/Stabiliser (e.g. HALS)		
Antioxidant (e.g. Irganox, Irgaphos etc.)		
Lubricant (e.g. calcium stearate etc.)		
Others <i>(please identify)</i>		



5. MANUFACTURING PROCESS

An understanding of the manufacturing process is very important for specifying the correct additive. Process factors such as high temperatures, high shear-rates and output rates or secondary heat-pass operations need to be considered.

Process Description (Please describe the processing route, providing descriptions of equipment, scale of process, output rate etc.)

Primary Process Temperatures (Please give typical temperature profile range e.g. 160-220°C)

Secondary Thermal Operations e.g. (Shrink Tunnel, Heat-Sealing, Welding, Printing etc. Please outline process and temperature history/residence time)

6. ADDITIONAL INFORMATION (Please provide any additional information that you think useful)

7. HEALTH AND SAFETY

The degradation responses of submitted samples are usually tested by accelerated UV and thermal ageing.

Please provide information on any component within the product that could be considered hazardous during long term exposure to temperatures in excess of 60°C. Please provide a Material Data Safety Sheet (MSDS) for the product/component.

This form must be signed by a representative of the customer/factory

The information given on this form is correct.

Name:	Date:
Signed:	Position

