

EMEA Supplies Compliance Overview

This document will provide a quick overview of common compliance relating to EMEA Supplies products. Compliance covered in this document includes food contact approvals such as FDA, BfR, European food contact approvals, UL/cUL, CSA, and which products do not contain Bisphenol A (BPA). For other types of compliance and approvals please see individual material or ribbon specification sheets. Alternatively, if you do not find the compliance you require please contact your Supplies Specialist Representative.

Contents

FDA, BfR and European Food Approvals	2
Zebra Ribbons for Indirect Food Contact Statement	8
UL/cUL Approvals	9
Z-Ultimate® Products	9
Z-Xtreme™ Products	11
Z-Supreme Products	14
CSA Approvals	15
Bisphenol A (BPA)	17
REACH Statement	18



FDA, BfR and European Food Approvals

The FDA and BfR are organisations which set standards for adhesives for food and medical use. The Food and Drug Administration, USA (FDA) and BfR (Bundesinstitut für Riskikoberwertung- Federal Institute for Risk Assessment) in Germany publish lists of chemicals according to their food contact approvals. However, they do not carry out individual product approvals. The European Union also lists legislation in regards to indirect and direct food contact.

The Food and Drug Administration (FDA) regulates a wide variety of areas such as food and packaging, drugs and packaging, cosmetic and medical devices. The FDA regulates adhesives through a number of specific regulations. FDA regulations include:

- 175.105 Indirect food additives
- 175.125 Pressure sensitive adhesives
- 176.170 Components of paper and paperboard in contact with aqueous and fatty foods.
- 176.180 Components of paper and paperboard in contact with dry foods

In Europe, EC 1935/2004 regulation outlines the law regarding chemical migration on all materials and articles in contact with foodstuffs and also those expected to come into contact with foodstuffs such as printing inks and adhesive labels. Furthermore, regulation EU 10/2011 is a specific law governing food contact plastics and migrations limitations.

There is a range of Zebra paper and synthetic materials that can be safely used on food packaging materials. Listed below are details of the direct/indirect food contact approvals for Zebra materials. Any materials not listed do not have any food contact approvals.

Material	EU / BfR Recommendation	FDA Approval
Z-Perform 1000D	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR XIV for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 3	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
Z-Perform 1000D High-Tack	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
Z-Perform 1000D Removable	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 for direct contact with dry and non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry and non-fatty foodstuffs
Z-Perform 1000D Deep-Freeze	EC 1935/2004, EU 10/2011, BfR Recommendation XIV approved for direct contact with dry and moist and such kind of fatty foods that have a reduction factor of at least 3	Not tested
Z-Perform 1000T	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
Z-Perform 1000T Removable	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 3	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs
Z-Perform 1000T High-Tack	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry, moist and non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact for dry foodstuffs

Z-Perform 1000T 150 Tag	BfR Recommendation XXXIV for direct contact with dry, moist and non-fatty foodstuffs	Not tested
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Material	EU / BfR Recommendation	FDA Approval
Z-Perform 1000T 190 Tag	BfR Recommendation XXXIV for direct contact with dry, moist and non-fatty foodstuffs	Not tested
Z-Select™ 2000T	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
Z-Select 2000T Removable	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 3	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
Z-Select 2000D	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs
Z-Select 2000D Removable	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs
PolyE 3000T Matte	Adhesive complies with European food regulation EU 10/2011 and BfR Recommendation XIV for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs
PolyE 4000T Matte High-Tack	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
PolyO 3100T Removable	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact for dry and non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier

Material	EU / BfR Recommendation	FDA Approval
PolyPro 3000T Gloss	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 2	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
PolyPro 3000T Gloss High-Tack	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
PolyPro™ 3000T Clear	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 2	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
PolyPro 4000D	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR XIV for direct contact with dry, non-fatty foodstuff	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs
8000T All-Temp	Not tested	FDA 175.105 approval for food packaging only
8000T Semi-Gloss	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR XIV for direct contact with dry, moist and such kind of fatty foodstuffs which have a reduction factor of at least 3	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
8000T Semi-Gloss Removable	Adhesive complies with European food regulations and BfR Recommendation XIV for direct contact with dry, moist and fatty foodstuffs which have a reduction factor of at least 3	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier

Material	EU / BfR Recommendation	FDA Approval
8000T Semi-Gloss Deep Freeze	Adhesive complies with European food regulations and BfR Recommendation XXI for direct contact dry, moist and non-fatty foodstuffs and such kind of fatty foodstuffs like dairy products	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
8000T Semi-Gloss Piggyback	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry, moist and non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
8000T Semi-Gloss Blockout	Adhesive complies with European food regulations EC 1935/2004, EU 10/2011 and BfR Recommendation XIV for direct contact with dry, moist and non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
8000T Ultra-Removable	Adhesive complies with European food regulation EC 1935/2004, EU 10/2011 and BfR Recommendation XXI for direct contact with dry and moist, non-fatty foodstuffs	Adhesive complies with FDA 175.105 for direct contact with dry foodstuffs, or alternatively separated by a functional barrier
ThermaLock 4000D	Not tested	Complies with FDA 175.105 for indirect food contact requirements
ThermaLock 4000D Removable	Not tested	Complies with FDA 175.105 for indirect food contact requirements
8000T Blood Bag	Not tested	Adhesive complies with FDA 175.105 for indirect contact with food additives, therefore label must be separated by a functional barrier
8000T Extra Tuff 180 Tag	Not tested	FDA regulations CFR 177.1520 and is approved for use in direct contact with dry, moist and fatty foodstuffs

Zebra Finished Ribbons for Indirect Food Contact Applications

June 2015

Page | 8

Zebra's ribbons are formulated and manufactured for use in a variety of printing applications. As such, Zebra has reviewed the Material Safety Data Sheets ("MSDSs") for the raw materials we use to determine whether the finished ribbons met the relevant requirements of the U.S. Food and Drug Administration (FDA) regulation 21 CFR 175 and 176 with regard to Indirect Food Contact in packaging, transporting, or holding food.

Indirect Food Contact – Adhesives – 21 CFR 175.105

Zebra ribbons meet the relevant requirements for FDA indirect food contact uses under 21 CFR 175.105 (Adhesives).

Indirect Food Contact – Pressure-Sensitive Adhesives – 21 CFR 175.125

Zebra ribbons meet the relevant requirements for FDA indirect food contact uses under 21 CFR 175.125 (Pressure Sensitive Adhesives).

Indirect Food Contact – Paper and Paperboard Components – 21 CFR Parts 176.170 and 176.180

Zebra ribbons meet the relevant requirements for FDA indirect food contact uses under 21 CFR Parts 176.170 and 176.180.

Indirect Food Contact – Resinous and Polymeric Coatings – 21 CFR Part 175.300

Zebra ribbons meet the relevant requirements for use as coatings or ink formulations for FDA indirect food contact under 21 CFR 175.300 (Resinous and Polymeric Coatings).

Based on the review of the relevant FDA regulations, the ink used on a label that is subsequently placed on another barrier (e.g., label, tag, etc.) prior to food contact assumes a functional barrier between the ink and food or other sensitive material. The FDA states that if there is a food-contact-approved functional barrier (e.g., resinous coating, protective film, transparent cover, etc.) separating printed material from the food, then such use of printing ink is not a food additive situation. The functional barrier must be of sufficient thickness and continuity that it prevents the ink from passing through the coating and migrating to the food. The manufacturer of the barrier must employ good manufacturing practices to ensure that the barrier has formed a continuous coating so that no pin-holing is present and the barrier is of sufficient thickness to prevent ink migration.

Gene Hofer
Manager, Supplies R&D

UL/cUL Approvals

For the most up-to-date information, visit the UL website on www.ul.com, and search under Company Name “Zebra Technologies”, for Global products see file MH15633 or for products specific to Europe, see file reference MH18322.

Marking and Labelling Systems - Printing Materials (PGJ12)

	4800	5095	5100	3200	3400	Image Lock TM
Z-Ultimate® 2500T White	✓	✓	✓			
Z-Ultimate 3000T White	✓	✓	✓			
Z-Ultimate 3000T Silver	✓	✓	✓			
Z-Ultimate 3000T High-Tack	✓	✓	✓			
Z-Xtreme™ 4000T White	✓	✓	✓	✓		
Z-Xtreme 4000T White High-Tack	✓	✓	✓	✓	✓	
Z-Xtreme 4000T Silver High-Tack	✓	✓	✓	✓	✓	
Z-Supreme 4200T Yellow			✓			
Z-Supreme 4000T White ESD			✓			
8000T ESD Gloss		✓	✓			
8000T Void Matte		✓			✓	
Z-Xtreme 5000T White						✓
Z-Xtreme 5000T Silver						✓

Z-Ultimate® Products

Z Ultimate 3000T White, Z-Ultimate 3000T Silver, Z-Ultimate 3000T High-Tack unprinted label stocks and ribbons are approved as detailed above and for the application surfaces as per the table below.

Z-Ultimate 3000T White and Z-Ultimate Silver are suitable where exposed outdoors affixed to aluminum, galvanized steel, acrylic paint, alkyd enamel, stainless steel, polyester paint, porcelain, nylon, melamine plastic, polycarbonate, phenolic plastic, polystyrene, ABS plastic and unsaturated (Thermoset) polyester plastic.

Z-Ultimate 3000T High-Tack is suitable where exposed outdoors when affixed to the above surfaces except polypropylene and EPDM rubber.

Application Surfaces	Z-Ultimate 3000T White 4800, 5095, 5100	Z-Ultimate 3000T Silver 4800, 5095, 5100	Z-Ultimate 3000T High-Tack 4800, 5095, 5100
Acrylic	150°C to -40°C	80°C to -40°C	150°C to -40°C*
Alkyd paint	150°C to -40°C	150°C to -40°C	150°C to -40°C*
Aluminum	150°C to -40°C	150°C to -40°C	150°C to -40°C*
Galvanized steel	150°C to -40°C	150°C to -40°C	150°C to -40°C*
Polyester paint	150°C to -29°C	125°C to -29°C	150°C to -40°C*
Porcelain	150°C to -29°C	100°C to -29°C	150°C to -40°C*
Stainless steel	150°C to -29°C	150°C to -29°C	150°C to -40°C*
Melamine	100°C to -29°C	100°C to -29°C	100°C to -40°C*
Nylon - Polyamide	100°C to -40°C*	100°C to -29°C	100°C to -40°C*
Phenolic - Phenol Formaldehyde	100°C to -29°C	100°C to -29°C	100°C to -40°C*
Polybutylene terephthalate	100°C to -40°C	Not tested	80°C to -40°C*
Polycarbonate	100°C to -40°C*	100°C to -29°C	100°C to -40°C*
Polyphenylene oxide/ether	100°C to -40°C	Not tested	100°C to -40°C*
Acrylonitrile butadiene styrene	80°C to -40°C	80°C to -40°C	80°C to -40°C*
Polypropylene	Up to 80°C	Up to 80°C	80°C to -40°C*
Polystyrene	80°C to -29°C	80°C to -29°C	100°C to -40°C*
Unsaturated polyester - thermoset	80°C to -40°C	80°C to -40°C	100°C to -40°C*
Polyoxymethylene	Up to 40°C	Not tested	Not tested
Polyurethane paint	Not tested	80°C to -29°C	Not tested
Epoxy paint	Not tested	Not tested	150°C to -40°C*
Polyester powder paint	Not tested	Not tested	150°C to -40°C*
Polyethylene	Not tested	Not tested	100°C to -40°C*
Polyvinyl chloride	Not tested	Not tested	100°C to -40°C*
EPDM rubber	Not tested	Not tested	Up to 40°C
Polystyrene rubber	Not tested	Not tested	Up to 40°C

The above materials have been accepted for use on Zebra® thermal transfer printers, reference approval number: UL MH15633, 95NK22563.

*The above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH18322 European file.

Z-Xtreme™ Products

Z-Xtreme 4000T White, Z-Xtreme 4000T White High-Tack and Z-Xtreme Silver High-Tack, unprinted label stocks and ribbons are approved as detailed in the summary table and for the application surfaces as per the table below.

Z-Xtreme 4000T White, Z-Xtreme 4000T White High-Tack and Z-Xtreme Silver High-Tack, are suitable where exposed indoors or outdoors to high humidity or occasional exposure to water.

Additionally, Z-Xtreme 4000T White High-Tack is suitable for outdoor use on all surfaces except polypropylene.

Application Surfaces	Z-Xtreme 4000T White 3200, 4800, 5095, 5100	Z-Xtreme 4000T White High-Tack & Silver High-Tack 3200, 4800, 5095, 5100
Aluminum	150°C to -40°C	80°C to -40°C
Stainless Steel	150°C to -40°C	Not tested
Galvanized Steel	150°C to -40°C	150°C to -29°C
Polyester Paint	150°C to -40°C	125°C to -29°C
Phenolic - Phenol Formaldehyde	100°C to -40°C	100°C to -29°C
Polycarbonate	100°C to -40°C	100°C to -40°C
Nylon - Polyamide	80°C to -40°C	80°C to -29°C
Polystyrene	60°C to -40°C	60°C to -40°C
ABS	60°C to -40°C	60°C to -29°C
Polypropylene	60°C to -29°C	40°C to -29°C

All of the above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH18322 European file.

Z-Xtreme 5000T White and Silver are approved unprinted label stocks and ribbons are approved as detailed below and for the application surfaces as per the table below. They are also suitable for outdoor use on all surfaces except polypropylene and EPDM rubber.

Application Surfaces	Z-Xtreme 5000T White/ Z-Xtreme 5000T Silver Image Lock ribbon
Acrylic paint (AC PT)	125°C to -40°C
Acrylic powder paint (AC PDR PT)	125°C to -40°C
Alkyd paint (AK PT)	125°C to -40°C
Aluminum (AL)	125°C to -40°C
Epoxy paint (EP PT)	125°C to -40°C
Epoxy powder paint (EP PDR PT)	125°C to -40°C
Epoxy/Polyurethane powder paint (EP/PUR PDR PT)	125°C to -40°C
Galvanized steel (GS)	125°C to -40°C
Polyester paint (PER PT)	125°C to -40°C
Polyester powder paint (PER PDR PT)	125°C to -40°C
Porcelain (PRCLN)	125°C to -40°C
Stainless steel (SS)	125°C to -40°C
Melamine (ME)	100°C to -40°C
Nylon - polyamide (PA)	100°C to -40°C
Phenolic - Phenol Formaldehyde (PH)	100°C to -40°C
Polycarbonate (PC)	100°C to -40°C
Polyethylene (PE)	100°C to -40°C
Polyvinyl chloride (PVC)	100°C to -40°C
Unsaturated polyester - thermoset (UP)	100°C to -40°C
Acrylonitrile butadiene styrene (ABS)	80°C to -40°C
EPDM rubber	80°C to -40°C
Polybutylene terephthalate (PBT)	80°C to -40°C
Polypropylene (PP)	Up to 80°C
Polystyrene (PS)	80°C to -40°C

All of the above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH15633, 95NK22563.

8000T Void Matte

8000T Void Matte unprinted label stock and appropriate ribbons are approved as detailed in the summary table and for the application surfaces detailed in the table below. Also suitable where exposed outdoors when affixed to the surfaces in the table, except polypropylene.

Application Surfaces	8000T Void Matte - 3400, 5095
Aluminum	150°C to -40°C
Galvanized steel	150°C to -40°C
Polyester paint	150°C to -40°C
Stainless steel	150°C to -40°C
Alkyd paint	125°C to -40°C
Phenolic - Phenol Formaldehyde	100°C to -40°C
Polyphenylene oxide/ether	100°C to -40°C
Melamine	80°C to -40°C
Nylon – Polyamide	80°C to -40°C
Polycarbonate	80°C to -40°C
Polypropylene	Up to 80°C
Polystyrene	80°C to -40°C
Acrylonitrile butadiene styrene	60°C to -40°C

The above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH18322 European file.

8000T ESD Gloss

8000T ESD Gloss unprinted label stock and appropriate ribbons are approved as detailed in the summary table and for the application surfaces detailed in the table below.

Application Surfaces	8000T ESD Gloss- 5095, 5100
Alkyd paint	150°C to -40°C
Polycarbonate	100°C to -40°C
Stainless steel	150°C to -40°C
Epoxy printed wiring boards	150°C to -40°C

The above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH18322 European file

Z-Supreme Products

Z-Supreme 4000T products unprinted label stock and appropriate ribbons are approved as detailed in the summary table and for the application surfaces detailed in the table below.

Application Surfaces	Z-Supreme 4000T White ESD - 5100	Z-Supreme 4200T Yellow - 5100
Melamine	100°C to -40°C	100°C to -40°C
Nylon- polyamide	100°C to -40°C	100°C to -40°C
Phenolic- Phenol Formaldehyde	100°C to -40°C	100°C to -40°C
Polycarbonate	100°C to -40°C	100°C to -40°C
Polyphenylene oxide/ether	100°C to -40°C	100°C to -40°C
Acrylonitrile butadiene styrene	80°C to -40°C	80°C to -40°C
Polystyrene	80°C to -40°C	80°C to -40°C
Unsaturated polyester- thermoset	80°C to -40°C	80°C to -40°C

The above materials have been accepted for use on Zebra thermal transfer printers, reference approval number UL MH18322 European file

CSA Approvals

For the most up-to-date information, visit the CSA website at <http://www.csa-international.org/Default.asp?language=english> and search for Zebra Technologies. See file reference 233092 or 097843_L_000

Material	3200	4800	5095	5100
Z-Ultimate 3000T White		✓	✓	✓
Z-Ultimate 3000T Silver		✓	✓	✓
Z-Xtreme 4000T White	✓	✓	✓	
Z-Xtreme 4000T White High-Tack	✓	✓	✓	
Z-Xtreme 4000T Silver High-Tack	✓	✓	✓	

Adhesive Type Labels- Printing Systems

Label materials	Application surfaces	Max temperature	Indoor/outdoor
Z-Ultimate 3000T White	Metal and Plastics Group 1	100°C	Indoor and outdoor
	Plastics Group II,III,V,VI,VII and VIII	80°C	Indoor and outdoor
Z-Ultimate 3000T Silver	Metal and Plastics Group 1	100°C	Indoor and outdoor
	Plastics Group II,III,V,VI,VII and VIII	80°C	Indoor and outdoor
Z-Xtreme 4000T White	Metal and Plastics Group 1	100°C	Indoor and outdoor
	Plastics Group II,III,V,VI,VII and VIII	80°C	Indoor and outdoor
Z-Xtreme 4000T White High-Tack	Metal and Plastics Group 1	100°C	Indoor and outdoor
	Plastics Group II,III,V,VI,VII and VIII	80°C	Indoor and outdoor
Z-Xtreme 4000T Silver High-Tack	Metal and Plastics Group 1	100°C	Indoor and outdoor
	Plastics Group II,III,V,VI,VII and VIII	80°C	Indoor and outdoor

Metals

Bare, plated, or enamelled steel; bare, anodized, or enamelled aluminium

Plastics

Clean, smooth, flat or curved surfaces of plastics in one or more of the following groups:

Group I	Phenolics (PH); Melamines (MF, M/P); Urea-Formaldehydes (UF)
Group II	Polyphenylene Oxides (PPHOX); Polyphenylene Sulphides (PPS)
Group III	Polycarbonates (PC); Acetates (CA, CAB); Acrylics (PMMA)
Group IV	Polypropylenes (PP); Polyethylenes (PE); Polybutylenes (PB).
Group V	Polyamides (PA); Polyimides (PI)
Group VI	Polystyrenes (PS); Acrylonitrile-Butadiene-Styrenes (ABS); Styrene-Acrylonitriles (SAN)
Group VII	Rigid and Plasticised Vinyls (PVC)
Group VIII	Glass-filled Polyesters (GRP); Glass-filled Epoxies (GREP); Polyethylene Terephthalates (PET); Polybutylene Terephthalates (PBTP)

The tests carried out on these label products determine their general suitability, but this does not constitute a certification, since the final acceptance of a printing system is determined only on converted label construction and the final application to an end product.

Bisphenol A (BPA)

Bisphenol A (“BPA”) is an industrial chemical used to make polycarbonate plastic resins, epoxy resins and other products---plastics containing BPA have been in the market for more than 50 years. BPA is used in small quantities on **some** direct thermal products as a developer that reacts with heat to produce the image. BPA is a low-cost developer that has been widely used in the direct thermal industry for many years. Please see below for a table stating which Zebra direct thermal products do and do not contain BPA.

Material	BPA Free?
Z-Perform 1000D	
Z-Perform 1000D Removable	
Z-Perform 1000D High-Tack	
Z-Perform 1000D Deep Freeze	
Z-Perform 1000D 110 Tag	
Z-Perform 1000D 60 Receipt	
Z-Perform 1000D 80 Receipt	
Z-Select 2000D	✓
Z-Select 2000D 145 Tag	✓
Z-Select 2000D 190 Tag	✓
Z-Select 2000D 60 Receipt	✓

Material	BPA Free?
Z-Select 2000D 80 Receipt	✓
PolyPro 4000D	✓
PolyPro 4000D Removable	✓
ThermaLock 4000D	✓
ThermaLock 4000D Removable	✓
IQ Color 2000D	✓
8000D 10 Year Receipt	✓
8000D Blockout	
8000D High-Temp Receipt	✓
8000D Linerless	✓
8000D Jewelry	✓

Product Performance and Suitability

The information contained in this document is to be used for guidance only and is not intended for use in setting specifications. All purchasers of Zebra products shall be solely responsible for independently determining if the product conforms to all requirements of their unique application.

Zebra REACH Statement

December 22, 2015

Page | 18

To Whom It May Concern:

This is in reference to your inquiry regarding Zebra's compliance with REACH – **R**egistration, **E**valuation, **A**uthorization, and **R**estriction of **C**hemicals (Regulation no. 1907/2006 of the European Parliament & Council).

Zebra is committed to complying with the requirements of this regulation as these apply to its products sold in Europe and around the globe. In this regard, Zebra aggressively works with our key suppliers to have them identify and preregister any REACH substances present in the parts supplied to us, as appropriate and covered under the regulation. Responses received from the suppliers regarding the presence of SVHCs (**S**ubstances of **V**ery **H**igh **C**oncern) as defined in the list published December 17, 2015 by ECHA. Based on the feedback received, Zebra is not aware of the presence of any of these SVHCs in our products. Zebra will continue to follow any additions / changes to the SVHC list in the future and will advise its customers about the presence of these substances if applicable upon request.

Sincerely,



Mr. Charles A. Darrow
Director, Compliance Engineering
Zebra Technologies Corporation