農業廃棄物由来のバイオプラスチック「TEXa」

TEXa は、 マレーシアの大手コングロマリットである TEXCHEM グループが開発した
お米のもみ殻やパーム油の搾り房（非可食部）など、 従来廃棄される部分を再利用した
バイオプラスチックです。
原料の 51%に農業廃棄物由来のバイオベースプラスチックを使用し、 残りの 49%に
石油由来のプラスチック・添加物を配合
農業廃棄物を利用できると同時に、 石油由来のプラスチックの使用量を削減し、 CO^2 排出量削減が可能です。

・射出成型とシート成型に対応可能なバイオプラスチック
・TEXa に 49%含まれる石油由来のプラスチックは PP、 PE、 エラストマーの3種類
・食品グレード（FDA 対応や日本食品衛生法対応グレードあり）
・高剛性グレード、 良流動グレードなど用途に合わせたグレードの提案が可能
・色はベージュとナチュラル（こげ茶）をラインナップ。 着色も可能
・表面のテクスチャーは繊維質感が有るものと無いものの2タイプ

「TEXa」 の強み

・PP と同等レベルの耐久性があり幅広い用途に検討可能
・すでに東南アジアを中心に上市実績多数（日本国内でも実績あり）
・日本食品衛生法対応グレードを有する（E2741・P2250 が該当）
・既存成型設備で生産が可能
・生産コストを抑制し、 一般的な生分解性樹脂よりも低価格を実現

「TEXa」 を使用したパーテーション用スタンド

SIZE ： W200×D30×H170mm
PRICE ： ￥2,400（上代価格）
MATERIAL ： TEXa

各種環境規則や認証に対応（食品衛生法対応グレードあり）

用途例


日用品・雑貨


カトラリー


パーソナルケア


物流


玩具


家具


家電・OA

汎用グレード物性表

Properties	Test Method	TEXα® Grades			
		G2632	G2623	G2341	F2250
Features		High Flow	Good Ductility	Standard Grade	High Strength & Stiffness
Biomass Type	-	Rice Husks	Rice Husks	Rice Husks	Palm Fibre
Surface Appearance	-	Non-Textured	Non-Textured	Particulate Texture	Fibrous Texture
Colour	-	Beige	Beige	Beige	Beige
Biobased Carbon Content (%)	ASTM D6866	28	28	35	37
Density (g/cm^3)	ASTM D792	1.1	1.1	1.1	1.1
Mould Shrinkage (%)	In-House Method	0.9-1.1	0.9-1.1	0.6-0.8	0.4-0.6
Spiral Flow Length* (cm)	In-House Method	34	28	28	27
Flexural Strength (MPa)	ASTM D790	27	20	36	45
Flexural Modulus (MPa)	ASTM D790	1100	787	1650	2200
Notched Impact Strength (J/m)	ASTM D256	47	71	46	100
HDT @ 0.455 MPa (°C)	ASTM D648	91	-	104	138
HDT @ 1.82 MPa (°C)	ASTM D648	62	-	65	85
Recommended Application		Household applications; Office stationery, i.e. pen, marker pen and highlighter.	Container lids, spouts and caps	. Containers/ Trays; Household applications such as hanger; furniture; Office stationery; Home appliance	Household, Furniture, Office Automation, Home Appliances, HIPS replacement
Intellectual Property (IP)		These biobased materials have been granted patent in US, UK, Germany, Italy, France, Australia, Japan, Taiwan, Hong Kong, Singapore, The Philippines and Malaysia.			

Note:
The stated values are typical values only and shall not to be construed as specification limits. Users should confirm results by their own tests.
As TEXα® is made from natural material, there may be variation in colour and odour from batch to batch.
**Tested using JSW 110 ton injection molding machine; Barrel Temperature set at 185 °C – 195°C.*

フードコンタクトグレード物性表

Conditions of Use		For Repeat Use at All Conditions of Use		For Repeat Use at Room Temperature or Below		As Replacement of Single-Use Plastic
Properties	**Test Method**	**TEXα® E2741**	**TEXα® P2250**	**TEXα® E2623T**	**TEXα® E2632T**	**TEXα® E2341S**
Base Polymer	-	PP	PP	PP	PP	PP
Surface Appearance	-	Particulate Texture	Fibrous Textured	Non-Textured	Non-Textured	Particulate Texture
Colour	-	Beige	Beige	Beige	Beige	Beige
Biobased Carbon Content (%)	ASTM D6866	35	37	28	28	35
Density (g/cm^3)	ASTM D792	1.1	1.1	1.1	1.1	1.1
Mould Shrinkage (%)	In-House Method	0.6-0.8	0.4-0.6	0.8-1.0	0.9-1.1	0.6-0.8
Spiral Flow Length* (cm)	In-House Method	26	27	28	34	26
MFI @ 230°C/2.16kg (g/cm)	ASTM D1238	12	-	10	18	12
Flexural Strength (MPa)	ASTM D790	35	45	15	27	35
Flexural Modulus (MPa)	ASTM D790	1700	2200	600	1100	1682
Notched Impact Strength (J/m)	ASTM D256	45	100	80	47	40
HDT @ 0.455 MPa (°C)	ASTM D648	107	138	60	95	105
Recommended Application		Tableware, Food Container, Infant Products	Tableware, Food Container, Infant Products.	For applications which requires good ductility e.g. Toothbrush, Shaver, Lid, Cosmetic Casing.	Over-moulded Tableware, Food Tray, Storage Container, Toy, Chopping Board.	For replacement of single-use Tableware and Food Container.
US FDA & EU Food Contact Compliances		• US FDA 21CFR 176.170(c) (Table 2) Migration Test: All food types under Conditions of Use from A through H • EU 10/2011 Overall Migration for Repeated Use Articles • Japan Food Sanitation Act		• US FDA 21CFR 176.170(c) (Table 2) Migration Test: All food types under Conditions of Use from E through H • EU 10/2011 Overall Migration for Repeated Use Articles		• US FDA 21CFR 176.170(c) (Table 2) Migration Test: All food types under Conditions of Use from A through H • EU 10/2011 Overall Migration for Single Use Articles
General Compliance/ Features		• Comply with US FDA 21 CFR 177.1520 Extraction Test • EU10/2011 Specific Migration for Repeated Use Articles • REACH & RoHS Compliance • BPA & Phthalates Free • Colorable • Recyclable Able to blend with virgin/recycled PP				
Intellectual Property (IP)		These biobased materials have been granted patent in US, UK, Germany, Italy, France, Australia, Japan, Taiwan, Hong Kong, Singapore, The Philippines and Malaysia.				

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製造元

TEXCHEM

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お問い合わせ先

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