



Delitube™ is Optinova's exclusive product line for the food and beverage processing industry. Delitube™ is the only tubing solution in the extrusion industry that has obtained food grade approvals in all three largest markets China, EU and the US.

- Materials comply with FDA 21 CFR 177.1550, USP Class VI and MERCOSUR GMC-56-92
- Products are tested and approved by US NSF/ANSI 51, European EU10/2011 and Chinese GB4806

Being made from PTFE, FEP and PFA, Delitube™ can be in direct contact with foods of all food types up to 175°C (347°F). Our tubing has a long life cycle and is easy to clean which makes it cost-effective and low-maintenance.

Delitube™

Food & Beverage Tubing

Optinova offers custom extrusion services with value-adding operations such as tip-forming, spiral cutting, pressure testing, etc. We offer 2D/3D fabricated tubing for optimal flow in tight spaces.

Key features

- UV, crack and chemical resistant
- Extremely low water absorption
- Single- or multi-lumen tubing
- Striped- or multi-striped tubing
- On spools or cut-to-length pieces
2D & 3D fabricated
- Low gas permeability and autoclavable

Applications

- General fluid handling and quality assurance of F&B processing lines
- Tubing in beverage production machines
- Hot and cold water in coffee machines
- Milk and milk powder in coffee machines

Material properties

	Unit	PTFE	FEP	PFA
Wall	mm (inches)	>0.1-5.0 (>0.004-0.2)	>0.3-4.0 (>0.01-0.16)	>0.3-4.0 (>0.01-0.16)
Density	g/m ³	2.17	2.15	2.15
Specific gravity		2.15	2.15	2.15
Transparency		Good	Very good	Excellent
Sterilization		EtO, Steam	EtO, Steam	EtO, Steam
Environmental				
Water absorption	%	<0.01	<0.01	<0.03
Weather resistance		Excellent	Excellent	Excellent
Chemical resistance		Excellent	Very good	Excellent
Flammability		V-0	V-0	V-0
Oxygen index	%	>95	>95	>95
Thermal				
Melting point	°C (°F)	330 (626)	257-275 (495-527)	300-310 (572-590)
Thermal conductivity	BTU/h/ft/°F	1.7	1.4	1.3
Min/Max service temp	°C (°F)	-240/260 (-400/500)	-200/200 (-328/390)	-200/260 (-328/500)
Shrink temperature	°C (°F)	335-345 (635-653)	149-232 (300-450)	
Deflection temp (66 psi)	°C (°F)	122 (252)	59 (138)	74(166)
Deflection temp (264 psi)	°C (°F)	55 (131)	57 (134)	48 (118)
Mechanical				
Tensile strength at break	MPa	20-34	20-28	25-30
Elongation at break	%	200-400	300-325	300
Compressive strength	psi	3 500	2 200	2 200
Impact strength	Ft-Lb/in	3.5	No Break	No Break
Flexural Modulus	MPa	275-620	550-700	590-700
Tensile Modulus	psi	80 000	50 000	40 000
Hardness	Shore D	55-65	55-60	55-64
Electrical				
Dielectric const at 103 Hz		2.1	2.1	2.1
Dielectric const at 106 Hz		2.1	2.1	2.1
Dielectric DF at 103 Hz		0.0002	0.0001	0.0002
Dielectric DF at 106 Hz		0.0002	0.0008	0.0003
Volume resistivity (D 257)	Ohm	>10 ¹⁸		

Optinova tubing can be customized or colored to meet specific customer requirements. We have OTC standard sizes in our global warehouses in the US, Germany and Thailand for fast delivery.