



**TUBI IN FLUOROPOLIMERI
TERMOPROCESSABILI
PFA - FEP - ETFE - PVDF**

**MELT PROCESSABLE
FLUOROPLASTIC TUBES
PFA - FEP - ETFE - PVDF**

	Properties	DIN or ASTM standard	Unit	PTFE*	FEP*	PFA*	ETFE*	PVDF*
general	Density	D792	g/m ³	2,14-2,19	2,12-2,17	2,12-2,17	1,78	1,78
	Use temperature	MAXIMUM	°C	260	205	260	150	140
	Flammability	UL94	-	V0	V0	V0	V0	V0
	Water absorption	D570	%	< 0,01	< 0,01	< 0,03	< 0,01	0,004
mechanical	Ultimate tensile strength at 23°C	D1708-D638	Mpa	29-39	19-25	27-32	36-38	35-50
	Elongation at tear, at 23°C	D1708-D638	%	200-500	250-350	300	200-500	150
	Maximun bending stress at 23°C	53452	Mpa	18	15	15	25	77
	Ball hardness 132/60	53456	N/mm ²	25-30	23-29	25-30	34-40	-
	Shore hardness D	D2240	SH	55-72	55-60	60-65	63-75	78
thermal	Melting temperature/fusion point	ASTM 2116	°C	327	253	300	265	174
	Thermal conductivity at 23°C	52612	W/K • m	0,23	0,20	0,22	0,23	0,20
	Specific heat at 23 °C	-	Kj/Kg • K	1,01	1,17	1,09	1,95	1,2
	Oxygen index	D2863	%	> 95	> 95	> 95	> 30	44
electrical	Dielectric constant at 10 ³ Hz	53483	-	2,0-2,1	2,1	2,06-2,01	2,6	7,2
	Dielectric constant at 10 ⁶ Hz	-	-	2,0-2,1	2,1	2,06-2,01	2,6	8,5
	Dielectric constant at 10 ³ Hz	53483	-	0,3-0,5	2-8	0,2	6-8	-
	Dielectric constant at 10 ⁶ Hz	-	-	0,7-1,0	2-8	0,8	50	-
	Volume resistivity	ICE 93+167	Ω • cm	10 ¹⁸	10 ¹⁸	10 ¹⁸	10 ¹⁶	> 10 ¹³
	Surface resistivity	ICE 93+167	Ω	10 ¹⁷	10 ¹⁶	10 ¹⁷	10 ¹⁴	> 10 ¹³
	Creep resistance	53480	%	7,0	3,0	2,7	2,3	0,7
	Dielectric strenght	53481	KV/mm	40-80	50-80	50-80	60-90	-

PTFE (Polytetrafluoroethylene) / F.E.P. (Perfluoroethylenepropylene) / P.F.A. (Perfluoralkoxy) / E.T.F.E. (Ethylene/tetrafluoroethylene) / P.V.D.F. (Polyvinylidene fluoride)

CARATTERISTICHE PRINCIPALI dei fluoropolimeri termoplastici

- Ottima resistenza chimica
- Ampia gamma di temperatura d'utilizzo (-70°C ; + 260°C)
- Eccellente resistenza ai raggi UV
- Anti-aderenza
- Ininfiammabilità
- Ottima resistenza dielettrica
- Superficie estremamente liscia e calibrata

MAIN FEATURES of Thermoplastic Fluoropolymers

- Excellent chemical resistance
- Wide Temperature working range (-70°C ; + 260°C)
- High UV rays resistance
- Low friction coefficient
- Low flammability
- Excellent Dielectric resistance
- Extremely smooth and calibrated surface

FEP, PFA e PVDF sono i fluoropolimeri termoplastici utilizzati da UNIGASKET per la produzione di tubi che trovano impiego in applicazioni ad alto valore aggiunto.

L'elevata resistenza ai contatti chimici, l'ampia temperatura d'esercizio unite all'elevata calibrazione rendono questi tubi una valida e versatile soluzione nel settore industriale.

Questa tipologia di materiali, contrariamente all'estrusione in pasta di PTFE, consentono una produzione di tubi con lunghezze in continuo elevate. I tubi in fluoropolimeri termoplastici possono essere realizzati in matassa, bobina, tagliati e termoformati su specifico disegno.

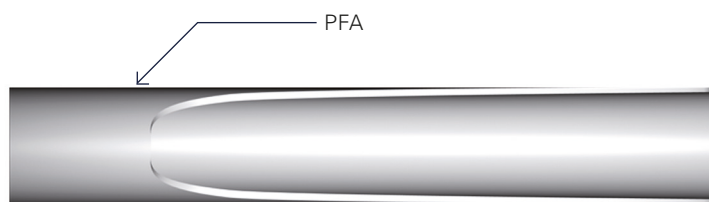
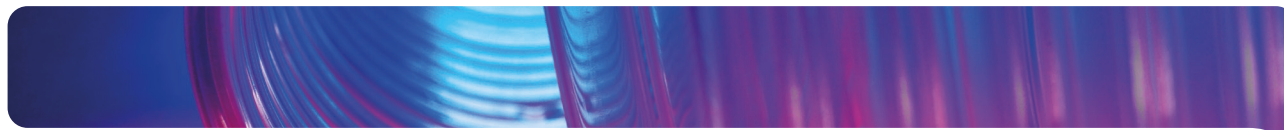
FEP, PFA and PVDF are the fluoropolymer thermoplastics used by UNIGASKET to produce tubes used with additional grow value applications.

The high chemical resistance and the wide temperature range with the good calibration are the main characteristics to use those tubing in the industrial field.

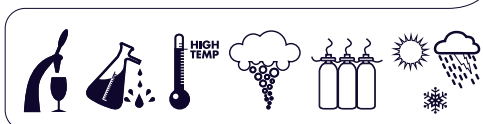
Thanks to a different production system we can produce tubes for different and longer lengths.

This tubing are available in reels, drums, catted and thermoformed according to specific drawing.

PFA Tubi PFA / PFA tubes



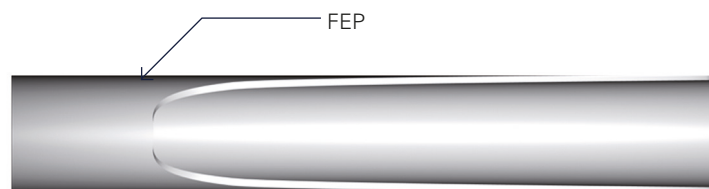
applicazioni:
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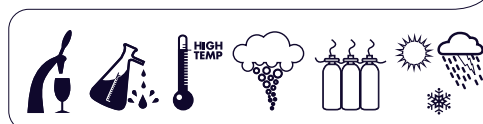
TIPO TYPE	Ø INTERNO / INSIDE Ø (mm)	Ø ESTERNO / OUTSIDE Ø (mm)	ESERCIZIO (20°C) SERVICE (68°F) (bar)	SCOPPIO (20°C) BURST (68°F) (bar)	RAGGIO MIN. CURV MIN. BEND RADIUS (mm)	PESI / WEIGHTS (gr/mt)
PFA	2,5	4	20	60	25	17
PFA	2	4	28	84	20	21
PFA	4	6	17	51	35	35
PFA	3	6	30	90	30	47
PFA	6	8	14	42	65	48
PFA	8	10	10	30	80	62
PFA	10	12	9	27	90	76

POSSIBILITA' DI PRODUZIONE PARTI TERFORMATE. THERMOFORMED PARTS AVAILABLES.

FEP Tubi FEP / FEP tubes



applicazioni:
applications:



TIPO TYPE	Ø INTERNO / INSIDE Ø (mm)	Ø ESTERNO / OUTSIDE Ø (mm)	ESERCIZIO (20°C) SERVICE (68°F) (bar)	SCOPPIO (20°C) BURST (68°F) (bar)	RAGGIO MIN. CURV MIN. BEND RADIUS (mm)	PESI / WEIGHTS (gr/mt)
FEP	2,5	4	22	66	25	17
FEP	2	4	30	90	20	21
FEP	3,2	6,35	31	94	25	52
FEP	4	6	19	57	35	35
FEP	4	6,35	22	65	35	42
FEP	4,76	6,35	14	41	35	31
FEP	3	6	31	93	30	47
FEP	6	8	14	42	40	48
FEP	6,35	9,5	19	57	40	86
FEP	8	10	10	30	60	62
FEP	9,5	12,7	14	41	85	123
FEP	10	12	9	27	85	76
FEP	12	14	7	21	150	90
FEP	14	16	6	18	200	104
FEP	15,6	19	9	28	180	203
FEP	16	18	5	15	350	117
FEP	16	19	8	24	300	181
FEP	18	20	14	41	85	123
FEP	22	25	4	12	400	131
FEP	25	28	5	16	500	275

POSSIBILITA' DI PRODUZIONE PARTI TERFORMATE. THERMOFORMED PARTS AVAILABLES.