

# EcoFITTOM<sup>®</sup>, the solution for the uniformity in water networks

## Product Overview

EcoFITTOM<sup>®</sup> PVC-O fittings, the first fittings in the world in this material, present excellent improvements in the mechanical properties of PVC. With ecoFITTOM<sup>®</sup> a continuous system in PVC-O is possible; this material continuity guarantees the same hydraulic and mechanical properties in the different elements of the network, in the pipes as well as in the fittings.



## Material:

- Oriented unplasticized poly(vinyl chloride) (PVC-O).

## Pressure Rating:

- Nominal Pressure: 16 bar.



## Temperature Rating:

EcoFITTOM<sup>®</sup> PVC-O fittings are highly resistant to extreme temperatures:

WRAS sanitary certificate, (UK). EcoFITTOM<sup>®</sup> PVC-O fittings.

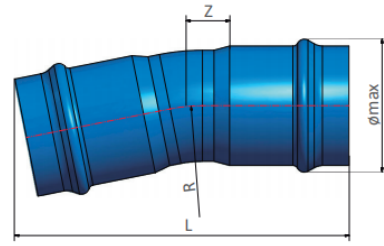
For use with water up to 60 °C

[https://molecor.com/sites/default/files/wras\\_60\\_ecofittom\\_approval\\_.pdf](https://molecor.com/sites/default/files/wras_60_ecofittom_approval_.pdf)

## Range:

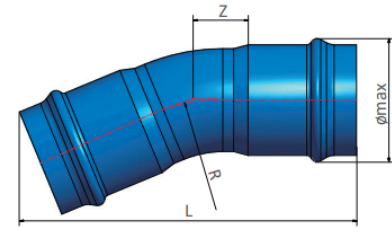
### 11,25° Socketed bend

DN	PN	Reference	ømax	L (mm)	Z (mm)	Radius (mm)	Weight (Kg)
110	10/16	F110C1116B	140	460	50	165	0.89
125*	10/16	F125C1116B	155	500	55	187.5	1.27
140*	10/16	F140C1116B	175	530	60	210	1.68
160	10/16	F160C1116B	200	540	65	240	2.11
200	10/16	F200C1116B	245	600	75	300	3.81
225	10/16	F225C1116B	270	645	85	340	5.38
250	10/16	F250C1116B	305	695	90	375	6.72
315	10/16	F315C1116B	375	815	110	475	12.50
400	10/16	F400C1116B	475	940	135	600	23.20



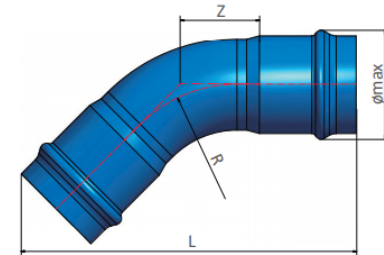
### 22,5° Socketed bend

DN	PN	Reference	ømax	L (mm)	Z (mm)	Radius (mm)	Weight (Kg)
110	10/16	F110C2216B	140	490	65	165	0.96
125*	10/16	F125C2216B	155	535	75	187.5	1.37
140*	10/16	F140C2216B	175	565	80	210	1.81
160	10/16	F160C2216B	200	585	90	240	2.37
200	10/16	F200C2216B	245	660	105	300	4.20
225	10/16	F225C2216B	270	710	120	340	5.94
250	10/16	F250C2216B	305	770	130	375	7.49
315	10/16	F315C2216B	375	915	155	475	14.04
400	10/16	F400C2216B	475	1070	195	600	26.35



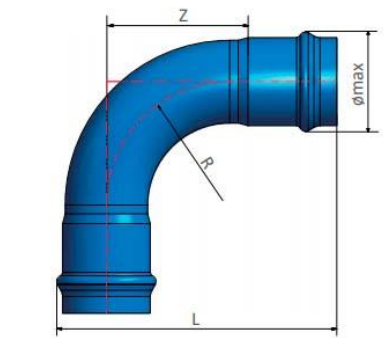
### 45° Socketed bend

DN	PN	Reference	ømax	L (mm)	Z (mm)	Radius (mm)	Weight (Kg)
110	10/16	F110C4516B	140	600	145	300	1.30
125*	10/16	F125C4516B	155	570	115	187.5	1.56
140*	10/16	F140C4516B	175	605	130	210	2.08
160	10/16	F160C4516B	200	640	140	240	2.71
200	10/16	F200C4516B	245	735	170	300	4.99
225	10/16	F225C4516B	270	840	195	340	7.06
250	10/16	F250C4516B	305	875	210	375	9.03
315	10/16	F315C4516B	375	940	140	300	14.87
400	10/16	F400C4516B	475	1250	330	600	32.64



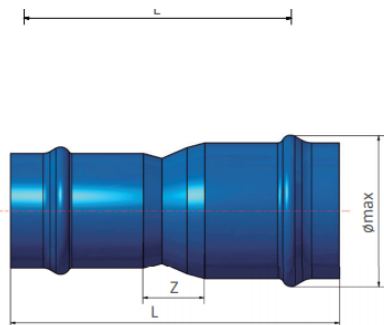
### 90° Socketed bend

DN	PN	Reference	ømax	L (mm)	Z (mm)	Radius (mm)	Weight (Kg)
110	10/16	F110C9016B	143	450	200	165	1.35
125*	10/16	F125C9016B	155	490	225	187.5	1.94
140*	10/16	F140C9016B	175	535	250	210	2.62
160	10/16	F160C9016B	198	565	275	240	3.52
200	10/16	F200C9016B	244	680	345	300	6.56
225	10/16	F225C9016B	270	750	370	340	9.30
250	10/16	F250C9016B	305	800	430	375	12.10
315	10/16	F315C9016B	375	850	380	315	19.16
400*	10/16	F400C9016B	472	900	375	300	32.64



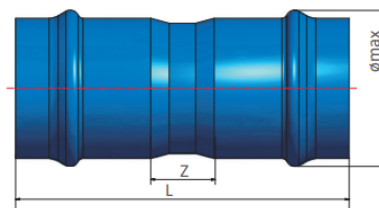
### Socketed reducer

DN/DN	PN	Reference	ømax	L (mm)	Z (mm)	Weight (Kg)
110 / 90	10/16	F110R09016B	140	385	55	0.78
125 / 110	10/16	F125R11016B	155	450	80	1.17
140 / 110	10/16	F140R11016B	175	465	90	1.54
160 / 110	10/16	F160R11016B	200	480	105	1.95
160 / 140	10/16	F160R14016B	200	455	60	1.78
200 / 160	10/16	F200R16016B	245	525	100	3.33
225 / 160	10/16	F225R16016B	270	585	195	4.98
225 / 200	10/16	F225R20016B	270	510	80	4.31
250 / 200	10/16	F250R20016B	305	585	120	5.95
315 / 250	10/16	F315R25016B	375	690	155	11.05
400 / 315	10/16	F400R31516B	475	790	155	19.39



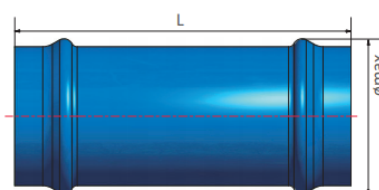
## Coupler

DN	PN	Reference	ømax	L (mm)	Z (mm)	Weight (Kg)
110	10/16	F110M16B	140	420	70	0.83
125*	10/16	F125M16B	155	455	75	1.17
140*	10/16	F140M16B	175	465	80	1.54
160	10/16	F160M16B	200	490	85	1.91
200	10/16	F200M16B	245	530	95	3.41
225	10/16	F225M16B	270	580	115	4.87
250	10/16	F250M16B	305	620	120	6.06
315	10/16	F315M16B	375	715	145	11.34
400	10/16	F400M16B	475	820	190	21.12



## Sliding coupler

DN	PN	Reference	ømax	L (mm)	Z (mm)	Weight (Kg)
110	10/16	F110MR16B	140	420	-	0.83
125*	10/16	F125MR16B	155	455	-	1.17
140*	10/16	F140MR16B	175	465	-	1.54
160	10/16	F160MR16B	200	490	-	1.91
200	10/16	F200MR16B	245	530	-	3.41
225	10/16	F225MR16B	270	580	-	4.87
250	10/16	F250MR16B	305	620	-	6.06
315	10/16	F315MR16B	375	715	-	11.34
400	10/16	F400MR16B	475	820	-	21.12



\* Available under request

## Applications

The ecoFITTOM® fittings are 100% compatible with the TOM® pipes as well as with any other PVC pipe and can be used for the following applications:

### Water supply

Conduits for potable water transport. It is included both water abstraction and water distribution network to city centers, urban network and industrial areas and water transport to tanks and reservoirs.

### Reclaimed water

Pipelines for transport of water that has been treated to remove impurities.

### Irrigation

Water transport pipes for irrigation purposes. It includes irrigated land pipelines, water transfer to tanks and reservoirs.

### Other applications:

- Sewage
- Fire protection nets
- Industrial applications
- Infrastructure nets



## Features & Benefits

- **Continuous system:** ecoFIT TOM® offer the opportunity to obtain more homogeneous hydraulic networks in terms of the materials that form them guaranteeing the same mechanical properties in the different elements of the network. This ensures a complete watertight of the unions and a noticeable decrease in eventual breakages and leakages.
- **Guaranteed water quality:** ecoFIT TOM® is immune to corrosion and to the chemical aggressions from mirco- and macro- organisms. The quality of the conveyed water remains always unaltered, thus meeting the health standards for water for human consumption.
- **Reduction of the water hammer effect:** PVC-O capacity to endure water hammer is really high. This effect can be up to four times lower than in systems made of other materials.
- **PVC-O pipes and PVC-O fittings** do not require any type of external or internal protection or coating **against corrosion, unlike metallic fittings.**
- Thanks to their lightness and easy handling, given by their excellent physical and mechanical characteristics, **no heavy machinery is required** for their installation up to DN315 mm, something that contributes to reduce the installation costs and times considerably.
- **Sustainability:** More than 50% of the PVC resin is made of chlorine, derivative of the common salt, fact that contributes significantly to the non-renewable resources savings such as oil or gas.
- The systems formed by TOM® pipes and ecoFIT TOM® fittings produce **the lowest CO<sub>2</sub> emissions** during their life cycle and their manufacture results in a 33% reduction of CO<sub>2</sub> emissions in comparison with other solutions.
- EcoFIT TOM® are a **chemically inert material, immune to corrosion** and to attacks from micro-organisms. Consequently the water quality remains always unaltered so that it is suitable for the human consumption.
- **Durable and 100% recyclable:** the PVC-O with which the ecoFIT TOM® fittings and the TOM® pipes are manufactured can be reused, not only for the manufacturing of new fittings or pipes, but also for
- **Ductility:** the PVC-O excellent elasticity allows that both, pipes and fittings, recover their original shape after being struck or after having suffered impacts while being manipulated or installed. This

ductility avoids breakages and the propagation of cracks and scratches and ensures an optimal performance of the elements once they are installed.

- **Plug connection system:** both, the efficient design of the socket and the rubber gasket, guarantee a perfect watertight of the unions and allow connecting the pipes and the fittings in a faster way. The plug connection system facilitates the installation and ensures a correct connection between the pipes and the fittings.
- The **high chemical and mechanical resistance** that PVC-O presents against degradation prevents leakages of the channeled water. This material ensures, therefore, a **greater durability of the product**.
- EcoFIT TOM<sup>®</sup>, as well as the TOM<sup>®</sup> pipes, present a **higher installation performance** in meters/hour in comparison with the solutions made of other materials.

## Standards / Approvals

- UNE-CEN / TS 17176-3:2019: *“Plastic piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure - Oriented unplasticized poly(vinyl chloride) (PVC-O) - Part 3: Fittings”*.
- EN-17176:2019: *“Plastic piping systems for water supply and for buried and above ground drainage, sewerage and irrigation under pressure - Oriented unplasticized poly(vinyl chloride) (PVC-O) - Part 3: Fittings”*.
- AENOR Product Certification nº 001/007103 according to UNE-CEN/TS 17176-3:2019. N Mark.

## Media Links

Website: <https://molecor.com/en>

LinkedIn: <https://www.linkedin.com/company/molecor-tecnologia>

YouTube: [https://www.youtube.com/channel/UCPjppyZ\\_56RKVBsc-\\_hWHVg](https://www.youtube.com/channel/UCPjppyZ_56RKVBsc-_hWHVg)

Twitter: <https://twitter.com/Molecor>

Facebook: <https://www.facebook.com/Molecor>

## Project References

- Creation of the potable water and sewerage service in the towns of Yacila, Cangrejos, Islilla and La Tortuga in the district of Paita, Piura, Peru <https://molecor.com/en/pvc-o-pipes/project-references/creation-potable-water-and-sewerage-service-towns-yacila-cangrejos>
- Sanitation and potable water program for the Chaco and intermediate cities of the eastern region of Paraguay (phase II), Paraguay <https://molecor.com/en/pvc-o-pipes/project-references/sanitation-and-potable-water-program-chaco-and-intermediate-cities>
- Installation of ecoFIT TOM fittings in Huesca, Spain <https://molecor.com/en/pvc-o-pipes/project-references/installation-ecofittom-fittings-huesca-spain>
- Network for irrigation project in Switzerland <https://molecor.com/en/pvc-o-pipes/project-references/network-irrigation-project-switzerland>

- Fire extinguishing network in France <https://molecor.com/en/pvc-o-pipes/project-references/fire-extinguishing-network-france>

## Literature / Specification / Downloads

- EcoFIT TOM® PVC-O fittings diptych: [https://molecor.com/sites/default/files/diptico\\_ecofittom\\_en.pdf](https://molecor.com/sites/default/files/diptico_ecofittom_en.pdf)
- PVC-O fittings technical sheet: [https://molecor.com/sites/default/files/pvc-o\\_fittings\\_en.pdf](https://molecor.com/sites/default/files/pvc-o_fittings_en.pdf)
- Project references and case studies: [https://molecor.com/sites/default/files/molecor\\_project\\_references.pdf](https://molecor.com/sites/default/files/molecor_project_references.pdf)
- TOM® PVC-O pipes multi-format catalogue: <https://molecor.com/en/browse-tom-pipes-multiformat-catalogue>
- Technical Manual for Network Design and Use. TOM® PVC-O pipes: <https://molecor.com/en/downloads>