

Somi



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2025/01/N

01 - BLUEPOWER TUB UNA BOCA



Article	Descripcio	U.Pvp	PVP
01640010	BLUEPOWER TUBO 40-1000 UNA BOCA	4,68€	
01640020	BLUEPOWER TUBO 40-3000 UNA BOCA	13,81€	
01640030	BLUEPOWER TUBO 50-1000 UNA BOCA	4,73€	
01640040	BLUEPOWER TUBO 50-3000 UNA BOCA	14,16€	
01640050	BLUEPOWER TUBO 75-1000 UNA BOCA	8,25€	
01640060	BLUEPOWER TUBO 75-3000 UNA BOCA	21,31€	
01640070	BLUEPOWER TUBO 90-1000 UNA BOCA	11,75	
01640080	BLUEPOWER TUBO 90-3000 UNA BOCA	32,18€	
01640090	BLUEPOWER TUBO 110-1000 UNA BOCA	14,98€	
01640100	BLUEPOWER TUBO 110-3000 UNA BOCA	36,20€	
01640085	BLUEPOWER TUBO 110-500 UNA BOCA	10,10€	
01640105	BLUEPOWER TUBO 125-500 UNA BOCA	17,69€	
01640110	BLUEPOWER TUBO 125-1000 UNA BOCA	20,55€	
01640120	BLUEPOWER TUBO 125-3000 UNA BOCA	52,99€	
01640130	BLUEPOWER TUBO 160-1000 UNA BOCA	29,06€	
01640140	BLUEPOWER TUBO 160-3000 UNA BOCA	76,23€	
01640150	BLUEPOWER TUBO 200-1000 UNA BOCA	68,53€	
01640160	BLUEPOWER TUBO 200-3000 UNA BOCA	171,49€	
01640170	BLUEPOWER TUBO 250-1000 UNA BOCA	111,99	
01640180	BLUEPOWER TUBO 250-3000 UNA BOCA	280,61€	

02 - BLUEPOWER MANEGUET AMB TOPE



Article	Descripcio	U.Pvp	PVP
01641410	BLUEPOWER MANGUITO CON TOPE 40	3,00€	
01641420	BLUEPOWER MANGUITO CON TOPE 50	3,27€	
01641430	BLUEPOWER MANGUITO CON TOPE 75	4,94€	
01641440	BLUEPOWER MANGUITO CON TOPE 90	6,75€	
01641450	BLUEPOWER MANGUITO CON TOPE 110	7,40€	
01641460	BLUEPOWER MANGUITO CON TOPE 125	13,34€	
01641470	BLUEPOWER MANGUITO CON TOPE 160	17,93€	
01641480	BLUEPOWER MANGUITO CON TOPE 250	198,00€	

03 - BLUEPOWER MANEGUET SENSE TOPE



Article	Descripcio	U.Pvp	PVP
01641310	BLUEPOWER MANGUITO SIN TOPE 40	3,07€	
01641320	BLUEPOWER MANGUITO SIN TOPE 50	3,34€	
01641330	BLUEPOWER MANGUITO SIN TOPE 75	4,23€	
01641340	BLUEPOWER MANGUITO SIN TOPE 90	6,78€	
01641350	BLUEPOWER MANGUITO SIN TOPE 110	7,73€	
01641360	BLUEPOWER MANGUITO SIN TOPE 125	13,36€	
01641370	BLUEPOWER MANGUITO SIN TOPE 160	18,33€	
01641380	BLUEPOWER MANGUITO SIN TOPE 200	96,93€	

04 - BLUEPOWER COLZE 45°



Article	Descripcio	U.Pvp	PVP
01640210	BLUEPOWER CODO 40-45°		1,87€
01640220	BLUEPOWER CODO 50-45°		2,50€
01640230	BLUEPOWER CODO 75-45°		4,12€
01640240	BLUEPOWER CODO 90-45°		5,61€
01640250	BLUEPOWER CODO 110-45°		6,25€
0164026	BLUEPOWER CODO 125-45°		10,68€
01640270	BLUEPOWER CODO 160-45°		18,20€
0164028	BLUEPOWER CODO 200-45°		106,08€

05 - BLUEPOWER COLZE 67°



Article	Descripcio	U.Pvp	PVP
01640310	BLUEPOWER CODO 40-67°		2,38€
01640320	BLUEPOWER CODO 50-67°		3,21€
01640330	BLUEPOWER CODO 75-67°		4,90€
01640340	BLUEPOWER CODO 90-67°		7,40€
01640350	BLUEPOWER CODO 110-67°		7,83€
01640360	BLUEPOWER CODO 125-67°		16,41€
01640370	BLUEPOWER CODO 160-67°		30,46€

06 - BLUEPOWER COLZE 87°



Article	Descripcio	U.Pvp	PVP
01640410	BLUEPOWER CODO 40-87°		1,89€
01640420	BLUEPOWER CODO 50-87°		2,51€
01640430	BLUEPOWER CODO 75-87°		5,41€
01640440	BLUEPOWER CODO 90-87°		5,99€
01640450	BLUEPOWER CODO 110-87°		7,84€
01640460	BLUEPOWER CODO 125-87°		15,67€
01640470	BLUEPOWER CODO 160-87°		25,89€
01640480	BLUEPOWER CODO 200-87°		120,58€

07 - BLUEPOWER TE IGUAL



Article	Descripcio	U.Pvp	PVP
01640510	BLUEPOWER TE 40-45°		4.19€
01640610	BLUEPOWER TE 40-67°		4,69€
01640710	BLUEPOWER TE 40-87°		3,99€
01640520	BLUEPOWER TE 50-45°		5.09€
01640620	BLUEPOWER TE 50-67°		5,65€
01640720	BLUEPOWER TE 50-87°		4,79€
01640530	BLUEPOWER TE 75-45°		7.02€
01640630	BLUEPOWER TE 75-67°		7,81€
01640730	BLUEPOWER TE 75-87°		7,81€
01640540	BLUEPOWER TE 90-45°		10,94
01640740	BLUEPOWER TE 90-87°		10.41
01640550	BLUEPOWER TE 110-45°		
01640640	BLUEPOWER TE 110-67°		11.11 €
01640750	BLUEPOWER TE 110-87°		11.1
01640560	BLUEPOWER TE 125-45°		39.77€
01640650	BLUEPOWER TE 125-67°		38.54€
01640760	BLUEPOWER TE 125-87°		38.54€
01640570	BLUEPOWER TE 160-45°		62.98€
01640770	BLUEPOWER TE 160-87°		63.26€
01640580	BLUEPOWER TE 200-45°		181.79€

08 - BLUEPOWER TE REDUIDA



Article	Descripcio	U.Pvp	PVP
01640525	BLUEPOWER TE REDUCIDA 50-40-45°		5,09€
01640535	BLUEPOWER TE REDUCIDA 75-50-45°		7,02€
01640545	BLUEPOWER TE REDUCIDA 90-50-45°		10,94€
01640800	BLUEPOWER TE REDUCIDA 110-50-45°		11,10€
01640801	BLUEPOWER TE REDUCIDA 110-75-45°		11,64€
01640802	BLUEPOWER TE REDUCIDA 125-75-45°		26,45€
01640810	BLUEPOWER TE REDUCIDA 125-110-45°		26.45€
01640870	BLUEPOWER TE REDUCIDA 125-110-67°		26.45€
01640910	BLUEPOWER TE REDUCIDA 125-110-87°		25.39€
01640820	BLUEPOWER TE REDUCIDA 160-110-45°		43.79€
01640880	BLUEPOWER TE REDUCIDA 160-110-67°		43.79€
01640920	BLUEPOWER TE REDUCIDA 160-110-87°		41.59€

09 - BLUEPOWER TE DOBLE REDUIDA



Article	Descripcio	U.Pvp	PVP
01640950	BLUEPOWER TE DOBLE REDUCIDA 125-110-67°		34.25€

09 - BLUEPOWER TE DOBLE



Article	Descripcio	U.Pvp	PVP
01641010	BLUEPOWER TE DOBLE 110 45°		61.91€
01641015	BLUEPOWER TE DOBLE 110 67°		61.91€
01641110	BLUEPOWER TE DOBLE 110 87°		39.14€
01641115	BLUEPOWER TE DOBLE 125 67°		37.43€

10 - BLUEPOWER TE INSPECCIO



Article	Descripcio	U.Pvp	PVP
01641210	BLUEPOWER TE INSPECCION 50		8.52€
0164122	BLUEPOWER TE INSPECCION 75		11.05€
01641230	BLUEPOWER TE INSPECCION 90		13.74€
01641240	BLUEPOWER TE INSPECCION 110		16.22€
01641250	BLUEPOWER TE INSPECCION 125		31.78€
01641260	BLUEPOWER TE INSPECCION 160		48.85€

11 - BLUEPOWER REDUCCIO



Article	Descripcio	U.Pvp	PVP
01641510	BLUEPOWER REDUCCION 50-40		3,70€
01641530	BLUEPOWER REDUCCION 75-50		3,72€
01641520	BLUEPOWER REDUCCION 90-40		4.01€
01641540	BLUEPOWER REDUCCION 90-50		4,33€
01641550	BLUEPOWER REDUCCION 110-50		5.22€
01641560	BLUEPOWER REDUCCION 110-75		6,77€
01641570	BLUEPOWER REDUCCION 110-90		7.16€
01641580	BLUEPOWER REDUCCION 125-110		9.41€
01641600	BLUEPOWER REDUCCION 160 125		15.00€
01641590	BLUEPOWER REDUCCION 160-110		14.09€
01641610	BLUEPOWER REDUCCION 200-160		116.13

12 - BLUEPOWER TAP



Article	Descripcio	U.Pvp	PVP
01641710	BLUEPOWER TAPON 40		1,83€
01641720	BLUEPOWER TAPON 50		2,73€
01641730	BLUEPOWER TAPON 75		3,53€
01641740	BLUEPOWER TAPON 90		5,75€
01641750	BLUEPOWER TAPON 110		7,95€
0164176	BLUEPOWER TAPON 125		10,57€
01641770	BLUEPOWER TAPON 160		13.16€

13 - BLUEPOWER TAP REDUIT



Article	Descripcio	PVP
01641800	BLUEPOWER TAPON REDUCIDO 110-40	18,084€
01641810	BLUEPOWER TAPON REDUCIDO 110-50	20,103€

NOVEDAD

14 - BLUEPOWER TAP DOBLE REDUIT



Article	Descripcio	pvp
01641900	BLUEPOWER TAPON DOBLE REDUCIDO 110-40-40	46,611€

NOVEDAD

BLUEPOWER CERTIFICADOS

AENOR

Certificado AENOR de Producto
Plásticos

001/006827

AENOR certifica que la organización

COES COMPANY S.R.L.

con domicilio social en VIA CADUTI DEL LAVORO, 9/A - 20096 PIOLTELLO (MI) (Italia)

suministra Accesorios inyectados de polipropileno (PP) para evacuación de aguas residuales en el interior de la estructura de los edificios

conformes con UNE-EN 1451-1:1999
UNE-EN 1451-1:2001 ERRATUM

MARCA COMERCIAL BLUEPOWER

Más información en el anexo al certificado.

Centro de producción VIA CADUTI DEL LAVORO, 9/A - 20096 PIOLTELLO (MI) (Italia)

Esquema de certificación Para conceder este Certificado, AENOR ha ensayado el producto y ha comprobado el sistema de la calidad aplicado para su elaboración. AENOR realiza estas actividades periódicamente mientras el Certificado no haya sido anulado, según se establece en el Reglamento Particular RP 01.56.

Fecha de primera emisión 2018-04-12
Fecha de expiración 2023-04-12

Rafael GARCÍA MEIRO
Director General

AENOR INTERNACIONAL S.A.U.
Ginebra, 6, 22004 Madrid, España
Tel. 91 432 60 00 - www.aenor.com

AENOR

Certificado AENOR de Producto
Plásticos

001/006810

AENOR certifica que la organización

COES COMPANY S.R.L.

con domicilio social en VIA CADUTI DEL LAVORO, 9/A - 20096 PIOLTELLO (MI) (Italia)

suministra Tubos de polipropileno (PP) para la evacuación de aguas residuales (a baja y a alta temperatura) en el interior de la estructura de los edificios

conformes con UNE-EN 1451-1:1999
UNE-EN 1451-1:2001 ERRATUMMarca comercial BLUE POWER MULTILAYER PIPE
Serie 16
Diámetros (mm) 32 - 40 - 50 - 75 - 90 - 110 - 125 - 160 - 200
Área de aplicación BD
Tipo de embocadura Junta elástica

Centro de producción VIA CADUTI DEL LAVORO, 9/A - 20096 PIOLTELLO (MI) (Italia)

Esquema de certificación Para conceder este Certificado, AENOR ha ensayado el producto y ha comprobado el sistema de la calidad aplicado para su elaboración. AENOR realiza estas actividades periódicamente mientras el Certificado no haya sido anulado, según se establece en el Reglamento Particular RP 01.55.

Fecha de primera emisión 2018-04-12
Fecha de expiración 2023-04-12

Rafael GARCÍA MEIRO
Director General

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IBP

Bauaufsichtlich anerkannte Stelle
für Prüfung, Überwachung und
Zertifizierung
Zulassung neuer Baustoffe, Bauteile
und Bauarten
Forschung, Entwicklung,
Demonstration und Beratung auf
den Gebieten der Bauphysik
Institut für
Univ.-Prof. Dr.-Ing. Gerd Heuser
Univ.-Prof. Dr.-Ing. Klaus Sedwitzer

Test report P-BA 71/2010e

Determination of the Acoustic Performance
of a Wastewater Installation System in the LaboratoryClient: COES Company
Via Caduti del Lavoro N° 9/A
20096 PIOLTELLO (MI)
ITALYTest specimen: Wastewater installation system consisting of "BluePower" plastic
pipes (manufacturer: COES) mounted with pipe clamps "Bismat
1000" (manufacturer: Walraven).Contents: Table 1: Summary of test results
Figures 1 to 3: Detailed results
Figures 4 and 5: Test set-up
Annex A: Measurement set-up, noise excitation,
acoustic parameters
Annex F: Evaluation of measurements
Annex P: Description of test facility

The tests were performed in a laboratory accredited by the
German Accreditation System for Testing (DAP, file no. PL-
3743.26) according to standard EN ISO/IEC 17025.
Any publication of this document in part is subject to written
permission by the Fraunhofer Institute of Building Physics (IBP),
Stuttgart, May 11, 2010

Responsible Test Engineer: Head of Laboratory:

Dr. Ing. (FH) J. Müller
rer. nat. L. Weber

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www.ibp.fraunhofer.de

CSI

1535\DC\REA\24

27/09/2024

Risultati / Results:

Metodo di prova / Test method: EN 13823:2020+A1:2022

Identificazione provetta Specimen Identification	FIGRA 0.2MJ/0.4MJ [W/s]	THR [MJ]	LFS [Si/Yes - No/No]	SMOGR [m ² /s ²]	TSP [m ²]	FDP [No/No - <10s - >10s]
1	597.8 a/at 621s 597.8 a/at 621s	37.7	No/No	63.7	315.5	No/No

FIGRA = fire growth rate index; THR = total heat release; LFS = lateral flame spread; SMOGR = smoke growth rate index; TSP = total
smoke production; FDP = flaming droplets or particles

Classificazione / Classification:

Classificazione attribuita al campione / Sample classification:
potenzialmente / potentially BSI,d0

DATA Date	Operating Sector Fire Reaction Operating Sector Fire Reaction	BA Building & Construction BA Building & Construction
27/09/2024	Dr. Lorenzo Zavaglio 	Ing. Paolo Mele

Il documento è firmato digitalmente ai sensi del D.Lgs. 82/2005 s.m.i. e nome collegato e sostituisce il documento cartaceo
e la firma autografa ed ha validità con documento dalla data di apposizione della firma digitale / The document is digitally
signed in accordance with Legislative Decree n. 82/2005 as amended and replaces the paper document and the
handwritten signature and it's valid from the date of affixing the digital signature.

01 - COESPREENE TUB UNA BOCA



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651000	COESPREENE TUBO 40-1000	4,40€	
01651010	COESPREENE TUBO 40-3000	12,17€	
01651020	COESPREENE TUBO 50-1000	4,90€	
01651030	COESPREENE TUBO 50-3000	14,22€	
01651040	COESPREENE TUBO 75-1000	8,89€	
01651050	COESPREENE TUBO 75-3000	20,94€	
01651060	COESPREENE TUBO 90-1000	13,58€	
01651070	COESPREENE TUBO 90-3000	37,57€	
01651080	COESPREENE TUBO 110-1000	17,39	
01651090	COESPREENE TUBO 110-3000	46,74€	
01651100	COESPREENE TUBO 125-1000	26,01€	
01651110	COESPREENE TUBO 125-3000	60,50€	
01651120	COESPREENE TUBO 160-1000	40,70€	
01651130	COESPREENE TUBO 160-3000	107,2€	

02 - COESPREENE COLZE 45°



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651210	COESPREENE CODO 40-45°	1,85€	
01651220	COESPREENE CODO 50-45°	1,94€	
01651230	COESPREENE CODO 75-45°	3,34€	
01651240	COESPREENE CODO 90-45°	4,81€	
01651250	COESPREENE CODO 110-45°	5,19€	
01651260	COESPREENE CODO 125-45°	13,5€	
01651270	COESPREENE CODO 160-45°	32,02€	

03 - COESPREENE COLZE 67°



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651310	COESPREENE CODO 40-67°	1,85€	
01651320	COESPREENE CODO 50-67°	1,94€	
01651330	COESPREENE CODO 75-67°	3,32€	
01651340	COESPREENE CODO 90-67°	4,81€	
01651350	COESPREENE CODO 110-67°	5,19€	
01651360	COESPREENE CODO 125-67°	13,45	

04 -COESPREENE COLZE 87°



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651410	COESPREENE CODO 40-87°	1,85€	
01651420	COESPREENE CODO 50-87°	1,94€	
01651430	COESPREENE CODO 75-87°	3,34€	
01651440	COESPREENE CODO 90-87°	4,81€	
01651450	COESPREENE CODO 110-87°	5,19€	
01651460	COESPREENE CODO 125-87°	13,5€	
01651470	COESPREENE CODO 160-87°	37,68€	

05 -COESPREENE TE 45°


<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651510	COESPREENE TE 40-45°		2,64€
01651520	COESPREENE TE 50-45°		3,26€
01651530	COESPREENE TE 75-45°		6,04€
01651540	COESPREENE TE 90-45°		8,80€
01651550	COESPREENE TE 110-45°		9,77€
01651560	COESPREENE TE 125-45°		47.57€
01651570	COESPREENE TE 160-45°		138,5€

06 - COESPREENE TE 67°


<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651610	COESPREENE TE 40-67°		2.62€
01651620	COESPREENE TE 50-67°		3,28€
01651630	COESPREENE TE 75-67°		6,04€
01651650	COESPREENE TE 110-67°		11.38
01651660	COESPREENE TE 125-67°		48.24€
01651670	COESPREENE TE 160-67°		158,5€

07 - COESPREENE TE 87°


<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651710	COESPREENE TE 40-87°		2,64€
01651720	COESPREENE TE 50-87°		3,40€
01651730	COESPREENE TE 75-87°		6,04€
01651740	COESPREENE TE 90-87°		9,00€
01651750	COESPREENE TE 110-87°		9,77€
01651760	COESPREENE TE 125-87°		47.57€
01651770	COESPREENE TE 160-87°		158,5€

08 - COESPREENE TE REDUIDA


<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651810	COESPREENE TE REDUCIDA 125-110-45°		33,02€
01651830	COESPREENE TE REDUCIDA 125-110-87°		33,02€
01651820	COESPREENE TE REDUCIDA 160-110-45°		89,91€
01651840	COESPREENE TE REDUCIDA 160-125-87°		89,91€

09 - COESPREENE TE DOBLE



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01651910	COESPREENE TE DOBLE 110-67°		34.16€
01651920	COESPREENE TE DOBLE 110-87°		34.16€

10 - COESPREENE TE INSPECCIO



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01652010	COESPREENE TE INSPECCION 50		7,68€
01652020	COESPREENE TE INSPECCION 75		7,75€
01652030	COESPREENE TE INSPECCION 90		10,9€
01652040	COESPREENE TE INSPECCION 110		11,2€
01652050	COESPREENE TE INSPECCION 125		54,11€
01652060	COESPREENE TE INSPECCION 160		79,21€

11 - COESPREENE ENLLAÇ SENSE TOPE



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01652110	COESPREENE MANGUITO 40		2,96€
01652120	COESPREENE MANGUITO 50		3,02€
01652130	COESPREENE MANGUITO 75		3,84€
01652140	COESPREENE MANGUITO 90		6,42€
01652150	COESPREENE MANGUITO 110		6,49€
01652160	COESPREENE MANGUITO 125		17,63
01652170	COESPREENE MANGUITO 160		29,88€

12 - COESPREENE ENLLAÇ AMB TOPE



<u>Article</u>	<u>Descripció</u>	<u>U.Pvp</u>	<u>PVP</u>
01652210	COESPREENE MANGUITO CON TOPE 40		2,96€
01652220	COESPREENE MANGUITO CON TOPE 50		3,02€
01652230	COESPREENE MANGUITO CON TOPE 75		3,84€
01652240	COESPREENE MANGUITO CON TOPE 90		6,42€
01652250	COESPREENE MANGUITO CON TOPE 110		6,49€
01652260	COESPREENE MANGUITO CON TOPE 125		17,63
01652270	COESPREENE MANGUITO CON TOPE 160		29,88€

13 -COESPARENE AUMENT



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01652310	COESPARENE REDUCCION 50-40	1,99€	
01652320	COESPARENE REDUCCION 75-40	3,46€	
01652350	COESPARENE REDUCCION 75-50	3,69€	
01652330	COESPARENE REDUCCION 90-40	4,69€	
01652360	COESPARENE REDUCCION 90-50	5,84€	
01652380	COESPARENE REDUCCION 90-75	6,42€	
01652340	COESPARENE REDUCCION 110-40	4,87€	
01652370	COESPARENE REDUCCION 110-50	5,13€	
01652390	COESPARENE REDUCCION 110-75	5,19€	
01652400	COESPARENE REDUCCION 110-90	5,31€	
01652410	COESPARENE REDUCCION 125-110	11,79	
0165242	COESPARENE REDUCCION 160-110	21,58	
01652430	COESPARENE REDUCCION 160-125	30,06€	

14 - COEPRENE TAP



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01652510	COESPARENE TAPON 40		0,91€
01652520	COESPARENE TAPON 50		0,99€
01652530	COESPARENE TAPON 75		1,91€
01652540	COESPARENE TAPON 90		2,43€
01652550	COESPARENE TAPON 110		3,37€
01652560	COESPARENE TAPON 125		7,01€

15 - COESPARENE TAP REDUIT



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01652610	COESPARENE TAPON REDUCIDO 75-40	5,84€	
01652620	COESPARENE TAPON REDUCIDO 75-50	5,84€	
01652630	COESPARENE TAPON REDUCIDO 90-40	6,33€	
01652640	COESPARENE TAPON REDUCIDO 90-50	6,33€	
01652650	COESPARENE TAPON REDUCIDO 110-40	6,92€	
01652660	COESPARENE TAPON REDUCIDO 110-50	6,92€	
01652670	COESPARENE TAPON REDUCIDO 110-75	6,92€	
01652680	COESPARENE TAPON REDUCIDO 110-90	8,33€	

16 - COESPARENE TAP REDUIT DOBLE



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01652690	COESPARENE TAPON REDUCIDO DOBLE 110-40-40		28,18€

COESPREENE CERTIFICADO



Institution for testing, supervision
and certification, officially
recognized by the building supervisory authority.
Approval of new building materials, components
and types of construction

Director
Prof. Dr. Philip Leisner

Test Report P-BA 65/2024e

Determination of the Acoustic Performance of a Wastewater Installation System in the Laboratory according to DIN EN 14366-1

Client: Istituto Italiano Dei Plastici Srl
Via Velleia 2
20900 Monza MB
Italy

Test specimen: Wastewater system made of plastic "SERI PLAST Multilayer Pipe, PP, DN 110 x 2.7, (production date: 30/05/23)" with fittings "COESPREENE HTEA, PP-H", made by Coes Company with acoustic pipe clamps "Bismat 1000", made by Walraven.

Content: Sheet 1: Test set-up, test facility and test method
Results 1: Summary of test results (part 1)
Results 2: Summary of test results (part 2)
Results 3: Comparing products: Calculated Single Number Quantities (SNQ)
Table 1: Building situation: Prediction based on DIN EN 12354-5
Figure 1: Detailed results
Figures 2-3: Test set-up
Annex A: Measurement set-up and assessment of measurement results
Annex F: Evaluation of measurements
Annex P: Description of the test facility

Test date: The measurement was carried out on February 12th, 2024 in the test facilities of the Fraunhofer Institute for Building Physics in Stuttgart.

Stuttgart, April 12, 2024

Test Engineer:

Nice Dachtler

B. Eng. N. Dachtler

Head of the test laboratory:

M.B. Dipl.-Ing. (FH) S. Öhler

M.B. Dipl.-Ing. (FH) S. Öhler

The test was carried out in laboratory facilities of the IBP which is accredited according to DIN EN ISO/IEC 17025:2018 by the DAkkS. The accreditation certificate is D-PL-11140-11-00.

The mentioned measuring results exclusively refer to the investigated test object. Any publication of this document in part is subject to written permission by the Fraunhofer Institute for Building Physics (IBP).

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Comparing products: Calculated Single Number Quantities (SNQ)	P-BA 65/2024e Results 3
Client: Istituto Italiano Dei Plastici Srl, Via Velleia 2, 20900 Monza (MB), Italy	
Test specimen: Wastewater system made of plastic "SERI PLAST Multilayer Pipe, PP, DN 110 x 2.7, (production date: 30/05/23)" with fittings "COESPREENE HTEA, PP-H", made by Coes Company with acoustic pipe clamps "Bismat 1000", made by Walraven. Test object no.: S 12171-01; see Figures 2 and 3.	
Mounting conditions see Sheet 1.	
According to DIN EN 14366-1, two quantities are used for comparing products (wastewater systems): - A-weighted airborne sound power level for the radiated airborne sound in the source/installation room, - A-weighted apparent structure-borne sound pressure level generated in buildings.	
In the two building examples given below, one for heavy buildings and one for lightweight buildings, the single number quantities (SNQ) are calculated. Details of the example buildings are shown in DIN EN 12354-5, Annex G.4. However, the SNQ obtained here shall not be used in context with requirements in any other buildings. A prediction for the building considered is then required and shall be performed according to DIN EN 12354-5.	
a) Heavy building (DIN EN 12354-5, Annex G.4.2): The heavy building configuration has 18 cm concrete floors and separating walls with a surface mass of 220 kg/m ² . The values for $L_{w,app}$ are given in Table G.12 in DIN EN 12354-5, Annex G for the horizontal transmission indicated in Figure G.6 and are used for calculating the SNQ in the table below.	
b) Lightweight building (DIN EN 12354-5, Annex G.4.3): The building configuration has a timber frame structure and the separating wall is similar to the one used in G.3.1 but with timber studs; its mobility, required to calculate the installed power, is given in Table G.14. The values for $L_{w,inst}$ are given in Table G.13 in DIN EN 12354-5, Annex G for the horizontal transmission indicated in Figure G.6 and are used for calculating the SNQ in the table below.	
Wastewater system made of plastic "SERI PLAST Multilayer Pipe, PP, DN 110 x 2.7, (production date: 30/05/23)" with fittings "COESPREENE HTEA, PP-H", made by Coes Company with acoustic pipe clamps "Bismat 1000", made by Walraven. Test object no.: S 12171-01; see Figures 2 and 3.	
Calculated Single Number Quantities (SNQ), input data see Results 1 and 2.	Flow rate [l/s] 0.5 1.0 2.0 4.0
A-weighted airborne sound power level $L_{w,app}$ (50 Hz – 5 kHz) [dB] in the installation room (source room)	50.9 55.8 58.1 60.2
a) Example of SNQ for heavy buildings acc. DIN EN 12354-5, Annex G.4.2: Apparent structure-borne sound pressure level (receiving room) $L_{p,app}$ (50 Hz – 3150 Hz) [dB]	< 10 16.5 20.5 23.5
b) Example of SNQ for lightweight buildings acc. DIN EN 12354-5, Annex G.4.3: Apparent structure-borne sound pressure level (receiving room) $L_{p,app}$ (50 Hz – 2500 Hz) [dB]	12.8 19.6 24.3 27.4
Note: - The SNQ obtained here shall not be used in context with requirements in any other buildings. - $L_{w,app}$ corresponds to an $L_{w,inst}$. - Please use these values stating the flow rates, mounting conditions and used pipe clamps for advertisement. - Sound levels below 10 dB are not mentioned in the test report, since they are subject to an increased measurement uncertainty and moreover are not noticeable in a normal living environment.	
Fraunhofer IBP	The test was carried out in laboratory facilities of the IBP which is accredited according to DIN EN ISO/IEC 17025:2018 by the DAkkS. The accreditation certificate is D-PL-11140-11-00. Stuttgart, April 12, 2024 Head of the test laboratory:

Acoustic performance of a wastewater system acc. DIN EN 14366-1	P-BA 65/2024e Sheet 1
Client: Istituto Italiano Dei Plastici Srl, Via Velleia 2, 20900 Monza (MB), Italy	
Test specimen: Wastewater system made of plastic "SERI PLAST Multilayer Pipe, PP, DN 110 x 2.7, (production date: 30/05/23)" with fittings "COESPREENE HTEA, PP-H", made by Coes Company with acoustic pipe clamps "Bismat 1000", made by Walraven. Test object no.: S 12171-01; see Figures 2 and 3.	
Test set-up: The pipe system was mounted according to Figures 2 and 3 (see also Annex A). The pipe system consisted of straight wastewater pipes (nominal size OD 110), three inlet tees (1" x 1/2" x 1/2"), a 2 x 45° basement bend and a horizontal drain section. The inlet tees in the basement and on the ground floor were closed by lids supplied by the manufacturer.	
Pipe system: "SERI PLAST" Multilayer Pipe, PP, DN 110 x 2.7 (Production date: 30/05/23). Three-layer pipes with shaped pipe sockets. Material: PP, wall thickness = 3.1 mm, weight = 1.01 kg/m, density = 0.99 g/cm ³ , values measured by IBP. One-layer fittings: "COESPREENE HTEA". Material: PP-H, wall thickness = 3.1 mm, density = 1.0 g/cm ³ , values measured by IBP. Plug connection of the pipes and fittings (shaped pipe sockets).	
Pipe clamps: "Bismat 1000": Structure-borne sound insulating support attachment consisting of Bismat SL guidance clamps and Bismat SX socket clamps. In each storey (EG and UG) respectively one double clamp was installed at the lower wall area. To prevent contact to the pipe, the guidance clamp (SL) was mounted with 15 mm space between the locking tabs of the clamp (two 7.5 mm spacers on each side) in the upper wall area. The Bismat 1000 clamps were fixed to the installation wall with an adjustable wall plate with dowels and thread rods.	
The wastewater installation system was mounted by a technician under the authority of Fraunhofer IBP.	
Test facility: Installation test facility P12, mass per unit area of the installation wall 220 kg/m ² , mass per unit area of the ceiling 440 kg/m ² . Installation rooms sub-basement (UG), basement (UG) front, ground floor (EG) front and top floor (DG), measuring rooms: UG front, UG rear (details in Annex P and DIN EN 14366-1:2023-09).	
Test method: The measurements were performed according to DIN EN 14366-1; noise excitation by steady water flow with 0.5 l/s, 1.0 l/s, 2.0 l/s and 4.0 l/s. Measured and calculated variables: airborne sound power level and single equivalent blocked force level (Results 1), single equivalent free velocity level and magnitude of single equivalent source mobility (Results 2). Details see Annex A and Annex F.	
Comparing products: Calculated Single Number Quantities (SNQ): Please use the calculated values according to DIN EN 12354-5:2023-08, Annex G.4 in Results 3, stating the flow rates, mounting conditions and used pipe clamps for advertisement. Additionally, Table 1 shows the predicted results for the test facility P12 at Fraunhofer IBP in Stuttgart.	
Note:	
Fraunhofer IBP	The test was carried out in laboratory facilities of the IBP which is accredited according to DIN EN ISO/IEC 17025:2018 by the DAkkS. The accreditation certificate is D-PL-11140-11-00. Stuttgart, April 12, 2024 Head of the test laboratory:

Building situation: Prediction based on DIN EN 12354-5		P-BA 65/2024e Table 1				
Client: Istituto Italiano Dei Plastici Srl, Via Velleia 2, 20900 Monza (MB), Italy						
Test specimen: Wastewater system made of plastic "SERI PLAST Multilayer Pipe, PP, DN 110 x 2.7, (production date: 30/05/23)" with fittings "COESPREEN HTEA, PP-H", made by Coes Company with acoustic pipe clamps "Bismat 1000", made by Walraven. Test object no.: S 12171-01; see Figures 2 and 3.						
Mounting conditions see Sheet 1.						
Prediction method: In this case the predicted values are calculated using a measured transfer function acc. to DIN EN ISO 10848 for the transmission from the source room to the receiving room in the test facility P12 at Fraunhofer IBP in Stuttgart. For the prediction only the structure borne sound is considered, but the airborne sound transmission is negligible for the SNQ.						
Present building situation for this prediction: In this case the calculations are based on the building situation in the test facility P12 at Fraunhofer IBP in Stuttgart, details see Annex P. The source room is the front room of the basement in the test facility ("UG front") and the receiving room is the horizontal room ("UG rear"). All floor/ceilings and all flanking walls to the installation wall are made of 19 cm thick concrete (weight per unit area approx. 440 kg/m²). The installation wall itself is 11.5 cm thick limestone, plastered on both sides (weight per unit area approx. 220 kg/m²).						
Input data for prediction: - source data for wastewater system, see Results 1 and 2 and - present building situation, see above.		Flow rate [l/s] 0.5 1.0 2.0 4.0				
Normalized sound pressure level $L_{p,norm}$ [dB] – Installation sound level						
1	$L_{w,app}$ 50 – 5000 Hz	source room	46.9	51.8	54.1	56.2
		receiving room	< 10	16.5	20.7	23.8
2	$L_{w,app}$ 100 – 5000 Hz	source room	46.9	51.8	54.1	56.2
		receiving room	< 10	16.4	20.5	23.6
Standardized sound pressure level $L_{p,inst}$ [dB] – Installation sound level						
3	$L_{w,app}$ 50 – 5000 Hz	source room	44.6	49.5	51.8	53.9
		receiving room	< 10	13.0	17.1	20.2
4	$L_{w,app}$ 100 – 5000 Hz	source room	44.6	49.5	51.8	53.9
		receiving room	< 10	12.9	17.0	20.1

Note: - Results in line #2 corresponds to DIN 4109-values and in line #4 to VDI 4100-values in old test reports.
- The SNQ obtained here shall not be used in context with requirements in buildings that do not correspond to the building situation mentioned above. The prediction can be done for any other building situation.
- Sound levels below 10 dB are not mentioned in the test report, since they are subject to an increased measurement uncertainty and moreover are not noticeable in a normal living environment.

Fraunhofer IBP

The test was carried out in laboratory facilities of the IBP which is accredited according to DIN EN ISO/IEC 17025:2018 by the DAkkS. The accreditation certificate is D-PL-11140-11-00.
Stuttgart, April 12, 2024
Head of the test laboratory:

01 - PE DC MANGUITO



<u>Articulo</u>	<u>Descripcion</u>	<u>U.Pvp</u>	<u>PVP</u>
02480010	PE DC MANGUITO 160		12,23€
02480020	PE DC MANGUITO 200		16,23€
02480030	PE DC MANGUITO 250		26,23€
02480040	PE DC MANGUITO 315		38,29€
02480050	PE DC MANGUITO 400		75,31€
02480060	PE DC MANGUITO 500		121,37€
02480070	PE DC MANGUITO 630		195,43€

02 - PE DC CODO 90° H-H



<u>Articulo</u>	<u>Descripcion</u>	<u>U.Pvp</u>	<u>PVP</u>
02480100	PE DC CODO 90° H-H 160		13,83€
02480110	PE DC CODO 90° H-H 200		28,63€
02480120	PE DC CODO 90° H-H 250		48,91€
0248013	PE DC CODO 90° H-H 315		71,201€
02480140	PE DC CODO 90° H-H 400		313,91€
02480150	PE DC CODO 90° H-H 500		425,52€

03 - PE DC CODO 45° H-H



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
02480200	PE DC CODO 45° H-H 160		10,69€
02480210	PE DC CODO 45° H-H 200		25,14€
02480220	PE DC CODO 45° H-H 250		37,71€
02480230	PE DC CODO 45° H-H 315		56,40€
02480240	PE DC CODO 45° H-H 400		255,86€
02480250	PE DC CODO 45° H-H 500		387,37€

04 - PE DC TE 90° H-H-H



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
02480300	PE DC TE 90° H.H.H 160		17,43€
02480310	PE DC TE 90° H.H.H. 200		40,95€
02480320	PE DC TE 90° H.H.H. 250		152,23€
02480330	PE DC TE 90° H.H.H. 315		264,52€
02480340	PE DC TE 90° H.H.H. 400		481,95€

05 - PE DC TE 45° FFF AMB JUNTA



Articulo	Descripcion	U.Pvp	PVP
02480400	PE DC TE 45° H-H-H 160 (consultar)		xxxxx€
02480410	PE DC TE 45° H-H-H 200		48,95€
02480420	PE DC TE 45° H-H-H 250		152,23€
02480430	PE DC TE 45° H-H-H 315		262,73€
02480440	PE DC TE 45° H-H-H 400		525,40€

06 - PE DC REDUCCION



Articulo	Descripcion	U.Pvp	PVP
02480500	PE DC REDUCCION 315-200		78,650€
02480510	PE DC REDUCCION 315-250		91,340€
02480520	PE DC REDUCCION 400-250		113,00€
02480530	PE DC REDUCCION 400-315		115,69€

07- PE DC JUNTA



02480600	PE DC JUNTA 160	3,37€
02480610	PE DC JUNTA 200	4,83€
02480620	PE DC JUNTA 250	5,25€
02480630	PE DC JUNTA 315	7,22€
02480640	PE DC JUNTA 400	13,96€
02480650	PE DC JUNTA 500	24,94€
02480660	PE DC JUNTA 630	41,73€

01 - MANGUITO COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
00250480	CT MANGUITO 110 COLOR TEJA	3,66€	
00250490	CT MANGUITO 125 COLOR TEJA	5,17€	
00250500	CT MANGUITO 160 COLOR TEJA	8,480€	
00250510	CT MANGUITO 200 COLOR TEJA	13,65€	
00250520	CT MANGUITO 250 COLOR TEJA	33,77€	
00250530	CT MANGUITO 315 COLOR TEJA	63,38€	
00250540	CT MANGUITO 400 COLOR TEJA	108,05€	
00250545	CT MANGUITO 500 COLOR TEJA	734,17€	

02 - CODO 87° COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
00254910	CT CODO 110 - 87 COLOR TEJA	4,66€	
00255020	CT CODO 125 - 87 COLOR TEJA	5,89€	
00255050	CT CODO 160 - 87 COLOR TEJA	11,45€	
00255080	CT CODO 200 - 87 COLOR TEJA	24,03€	
00255110	CT CODO 250 - 87 COLOR TEJA	45,24€	
00255140	CT CODO 315 - 87 COLOR TEJA	92,29€	
00255170	CT CODO 400 - 87 COLOR TEJA	350,23€	
00255175	CT CODO 500 - 87 COLOR TEJA	1409,10€	

03 - CODO 45° COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
00254900	CT CODO 110 - 45 COLOR TEJA	3,91€	
00255000	CT CODO 125 - 45 COLOR TEJA	5,85€	
00255030	CT CODO 160 - 45 COLOR TEJA	8,900€	
00255060	CT CODO 200 - 45 COLOR TEJA	18,28€	
00255090	CT CODO 250 - 45 COLOR TEJA	45,24€	
00255120	CT CODO 315 - 45 COLOR TEJA	83,35€	
00255150	CT CODO 400 - 45 COLOR TEJA	180,48€	
00255155	CT CODO 500 - 45 COLOR TEJA	909,38€	

04 - TE 87° COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
00255165	CT TE 110 - 87 COLOR TEJA	6,86€	
00255200	CT TE 125 - 87 COLOR TEJA	11,98€	
00255230	CT TE 160 - 87 COLOR TEJA	17,10€	
00255260	CT TE 200 - 87 COLOR TEJA	31,05€	
00255290	CT TE 250 - 87 COLOR TEJA	88,75€	
00255320	CT TE 315-87 COLOR TEJA	213,28€	
00255350	CT TE 400-87 COLOR TEJA	422,05€	
00255355	CT TE 500-87 COLOR TEJA	1.531,22€	

05 - TE 45° COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
00255160	CT TE 110 - 45 COLOR TEJA	8,40€	
00255180	CT TE 125 - 45 COLOR TEJA	11,43€	
00255210	CT TE 160 - 45 COLOR TEJA	20,80€	
00255240	CT TE 200 - 45 COLOR TEJA	40,84€	
00255270	CT TE 250 - 45 COLOR TEJA	88,94€	
00255300	CT TE 315 - 45 COLOR TEJA	207,69€	
00255330	CT TE 400 - 45 COLOR TEJA	457,18€	
00255335	CT TE 500-45 COLOR TEJA	1.584,04€	

06 - REDUCCIO COLOR TEULA



Articulo	Descripcion	U.Pvp	PVP
00255357	CT REDUCCION 125-110 COLOR TEJA	4,56€	
00255358	CT REDUCCION 160-110 COLOR TEJA	6,91€	
00255360	CT REDUCCION 160-125 COLOR TEJA	6,91€	
00255370	CT REDUCCION 200-160 COLOR TEJA	10,45€	
00255380	CT REDUCCION 250-200 COLOR TEJA	30,00€	
00255390	CT REDUCCION 315-250 COLOR TEJA	52,38€	
00255400	CT REDUCCION 400-315 COLOR TEJA	142,86€	
00255410	CT REDUCCION 500-400 COLOR TEJA	376,528€	

01 - SIFON REGISTRO MH COLOR TEJA



Articulo	Descripcion	U.Pvp	PVP
750004874	SIFON REGISTROS M/H 110 COLOR TEJA		92,26€
750004881	SIFON REGISTROS M/H 125 COLOR TEJA		102,30€
750004898	SIFON REGISTROS M/H 160 COLOR TEJA		144,79€
750004904	SIFON REGISTROS M/H 200 COLOR TEJA		247,93€

06-11 VALVULAS ANTIRETORNO SANEAMIENTO TEJA



750011926	VALVULA ANTIRETORNO 110	98,350€
750011933	VALVULA ANTIRETORNO 125	116,08€
750011940	VALVULA ANTIRETORNO 160	139,32€
750011957	VALVULA ANTIRETORNO 200	291,64€
0750011964	VALVULA ANTIRETORNO 250	401,17€
0750021819	VALVULA ANTIRETORNO 315	528,78€
0750030489	VALVULA ANTIRETORNO 400	CONSULTAR

01 - MANIPULADO SIFON ESTANDAR

	Articulo	Descripcion	PVP
	01510010	MANIPULADO SIFÓN ESTANDAR 75	49.29€
	01510020	MANIPULADO SIFÓN ESTANDAR 90	75.11€
	01510030	MANIPULADO SIFÓN ESTANDAR 110	98.66€
	01510040	MANIPULADO SIFÓN ESTANDAR 125	123.45€
	01510050	MANIPULADO SIFÓN ESTANDAR 160	246.63€
	01510060	MANIPULADO SIFÓN ESTANDAR 200	367.82€
	01510070	MANIPULADO SIFÓN ESTANDAR 250	574.66€
	01510080	MANIPULADO SIFÓN ESTANDAR 315	713.97€
	01510090	MANIPULADO SIFÓN ESTANDAR 400	1290.38€

02 - MANIPULADO SIFON TURCO VERTICAL

	Articulo	Descripcion	PVP
	01510210	MANIPULADO SIFON TURCO VERTICAL 75	95.74€
	01510220	MANIPULADO SIFON TURCO VERTICAL 90	111.96€
	01510230	MANIPULADO SIFON TURCO VERTICAL 110	130.15€
	01510240	MANIPULADO SIFON TURCO VERTICAL 125	153.89€
	01510250	MANIPULADO SIFON TURCO VERTICAL 160	270.36€
	01510260	MANIPULADO SIFON TURCO VERTICAL 200	402.95€
	01510270	MANIPULADO SIFON TURCO VERTICAL 250	629.48€
	01510280	MANIPULADO SIFON TURCO VERTICAL 315	782.01€

03 - MANIPULADO SIFON TURCO HORIZONTAL

	Articulo	Descripcion	PVP
	01510310	MANIPULADO SIFON TURCO HORIZONTAL 75	89.01€
	01510320	MANIPULADO SIFON TURCO HORIZONTAL 90	104.04€
	01510330	MANIPULADO SIFON TURCO HORIZONTAL 110	118.29€
	01510340	MANIPULADO SIFON TURCO HORIZONTAL 125	142.02€
	01510350	MANIPULADO SIFON TURCO HORIZONTAL 160	234.89€
	01510360	MANIPULADO SIFON TURCO HORIZONTAL 200	350.31€
	01510370	MANIPULADO SIFON TURCO HORIZONTAL 250	547.29€
	01510380	MANIPULADO SIFON TURCO HORIZONTAL 315	679.90€

04 - MANIPULADO SIFON VERTICAL PLUVIAL

	Articulo	Descripcion	PVP
	01510410	MANIPULADO SIFON VERTICAL PLUVIAL 75	109.49€
	01510420	MANIPULADO SIFON VERTICAL PLUVIAL 90	128.57€
	01510430	MANIPULADO SIFON VERTICAL PLUVIAL 110	149.46€
	01510440	MANIPULADO SIFON VERTICAL PLUVIAL 125	176.81€
	01510450	MANIPULADO SIFON VERTICAL PLUVIAL 160	298.46€
	01510460	MANIPULADO SIFON VERTICAL PLUVIAL 200	444.79€
	01510470	MANIPULADO SIFON VERTICAL PLUVIAL 250	695.05€
	01510480	MANIPULADO SIFON VERTICAL PLUVIAL 315	863.15€

05 - MANIPULADO SIFON BOTELLA



<u>Article</u>	<u>Descripcio</u>	<u>PVP</u>
01510510	MANIPULADO SIFON BOTELLA 75	109.49€
01510520	MANIPULADO SIFON BOTELLA 90	128.57€
01510530	MANIPULADO SIFON BOTELLA 110	149.46€
01510540	MANIPULADO SIFON BOTELLA 125	176.81€
01510550	MANIPULADO SIFON BOTELLA 160	298.46€
01510560	MANIPULADO SIFON BOTELLA 200	444.79€
01510570	MANIPULADO SIFON BOTELLA 250	695.05€
01510580	MANIPULADO SIFON BOTELLA 315	863.15€

06 - MANIPULADO MANGUITO ALARGADERA



<u>Articulo</u>	<u>Descripcion</u>	<u>PVP</u>
01510610	MANIPULADO MANGUITO ALARGADERA 75	12.43
01510620	MANIPULADO MANGUITO ALARGADERA 90	14.69
01510630	MANIPULADO MANGUITO ALARGADERA 110	17.17€
01510640	MANIPULADO MANGUITO ALARGADERA 125	19.59€
01510650	MANIPULADO MANGUITO ALARGADERA 160	34.45€
01510660	MANIPULADO MANGUITO ALARGADERA 200	42.91€
01510670	MANIPULADO MANGUITO ALARGADERA 250	103.86
01510680	MANIPULADO MANGUITO ALARGADERA 315	173.66€

07 - MANIPULADO REDUCCION PARA TUBO SIN BOCA



<u>Articulo</u>	<u>Descripcion</u>	<u>PVP</u>
01510710	MANIPULADO REDUCCION PARA TUBO SIN BOCA 75	11.07€
01510720	MANIPULADO REDUCCION PARA TUBO SIN BOCA 90	12.44€
01510730	MANIPULADO REDUCCION PARA TUBO SIN BOCA 110	14.69€
01510740	MANIPULADO REDUCCION PARA TUBO SIN BOCA 125	17.17€
01510750	MANIPULADO REDUCCION PARA TUBO SIN BOCA 160	32.02€
01510760	MANIPULADO REDUCCION PARA TUBO SIN BOCA 200	59.94€
01510770	MANIPULADO REDUCCION PARA TUBO SIN BOCA 250	103.86€
01510780	MANIPULADO REDUCCION PARA TUBO SIN BOCA 315	173.66€

08 - MANIPULADO REDUCCION CONCENTRICA (EMBUDO)



Articulo	Descripcion	PVP
01510810	MANIPULADO REDUCCION CONCENTRICA M-H 75-50	8.81€
01510820	MANIPULADO REDUCCION CONCENTRICA M-H 90-75	9.86€
01510830	MANIPULADO REDUCCION CONCENTRICA M-H 110-75	12.43€
01510835	MANIPULADO REDUCCION CONCENTRICA M-H 110-90	11.05€
01510840	MANIPULADO REDUCCION CONCENTRICA M-H 125- 90	12.43€
01510850	MANIPULADO REDUCCION CONCENTRICA M-H 125-110	14.69€
01510860	MANIPULADO REDUCCION CONCENTRICA M-H 140-110	14.69€
0151087	MANIPULADO REDUCCION CONCENTRICA M-H 140-125	16.93€
0151088	MANIPULADO REDUCCION CONCENTRICA M-H 145-125	17.17€
0151089	MANIPULADO REDUCCION CONCENTRICA M-H 160-110	16.93€
0151090	MANIPULADO REDUCCION CONCENTRICA M-H160-125	16.93€
0151091	MANIPULADO REDUCCION CONCENTRICA M-H 165-110	16.93€
0151092	MANIPULADO REDUCCION CONCENTRICA M-H 165-125	16.93€
01510930	MANIPULADO REDUCCION CONCENTRICA M-H 175-125	22.18€
01510940	MANIPULADO REDUCCION CONCENTRICA M-H 180-160	29.61€
01510950	MANIPULADO REDUCCION CONCENTRICA M-H 200-125	42.91€
01510960	MANIPULADO REDUCCION CONCENTRICA M-H200-160	29.61€
01510970	MANIPULADO REDUCCION CONCENTRICA M-H 225-160	128.39€
01510980	MANIPULADO REDUCCION CONCENTRICA M-H 225-200	85.89€
01510990	MANIPULADO REDUCCION CONCENTRICA M-H 250-200	88.64€
01511000	MANIPULADO REDUCCION CONCENTRICA M-H 315-200	214.44€
01511010	MANIPULADO REDUCCION CONCENTRICA M-H 315-250	138.12€
01511020	MANIPULADO REDUCCION CONCENTRICA M-H 400-315	363.50€

09 - MANIPULADO REDUCCION EXCENTRICA H-M



Articulo	Descripcion	PVP
OTRAS MEDIDAS CONSULTAR		
01511230	MANIPULADO REDUCCION EXCENTRICA H-M 400- 90	260.86€
01511240	MANIPULADO REDUCCION EXCENTRICA H-M 400-110	260.86€
01511250	MANIPULADO REDUCCION EXCENTRICA H-M 400-125	260.86€
01511260	MANIPULADO REDUCCION EXCENTRICA H-M 400-160	260.86€
01511270	MANIPULADO REDUCCION EXCENTRICA H-M 400-200	260.86€
01511280	MANIPULADO REDUCCION EXCENTRICA H-M 400-250	260.86€
01511290	MANIPULADO REDUCCION EXCENTRICA H-M 400-315	260.86€

10 - MANIPULAT INJERTO A TUBO



<u>Articulo</u>	<u>Descripcion</u>	<u>U.Pvp</u>	<u>PVP</u>
01511310	MANIPULADO INJERTO A TUBO 75-32	16.43	
01511320	MANIPULADO INJERTO A TUBO 75-40	17.52	
01511330	MANIPULADO INJERTO A TUBO 75-50	18.38€	
01511340	MANIPULADO INJERTO A TUBO 90-32	18.38€	
01511350	MANIPULADO INJERTO A TUBO 90-40	19.41€	
01511360	MANIPULADO INJERTO A TUBO 90-50	20.27€	
01511370	MANIPULADO INJERTO A TUBO 90-75	21.48€	
01511380	MANIPULADO INJERTO A TUBO 110- 32	20.45€	
01511390	MANIPULADO INJERTO A TUBO 110- 40	21.48€	
01511400	MANIPULADO INJERTO A TUBO 110- 50	22.34€	
01511410	MANIPULADO INJERTO A TUBO 110- 75	23.23€	
01511420	MANIPULADO INJERTO A TUBO 110- 90	24.77€	
01511425	MANIPULADO INJERTO A TUBO 110-110	30.54€	
01511430	MANIPULADO INJERTO A TUBO 125- 32	27.54€	
01511440	MANIPULADO INJERTO A TUBO 125- 40	28.05€	
01511450	MANIPULADO INJERTO A TUBO 125- 50	28.40€	
01511460	MANIPULADO INJERTO A TUBO 125- 75	29.45€	
01511470	MANIPULADO INJERTO A TUBO 125- 90	29.96€	
01511480	MANIPULADO INJERTO A TUBO 125-110	31.51€	
01511485	MANIPULADO INJERTO A TUBO 125-125	34.57€	
01511490	MANIPULADO INJERTO A TUBO 160- 32	28.40€	
01511500	MANIPULADO INJERTO A TUBO 160- 40	29.45€	
01511510	MANIPULADO INJERTO A TUBO 160- 50	30.31€	
01511520	MANIPULADO INJERTO A TUBO 160- 75	31.52€	
01511530	MANIPULADO INJERTO A TUBO 160- 90	32.90€	
01511540	MANIPULADO INJERTO A TUBO 160-110	34.26€	
01511550	MANIPULADO INJERTO A TUBO 160-125	34.61€	
01511560	MANIPULADO INJERTO A TUBO 200-110	41.18€	
01511570	MANIPULADO INJERTO A TUBO 200-125	44.12€	
01511580	MANIPULADO INJERTO A TUBO 200-160	47.24€	
01511590	MANIPULADO INJERTO A TUBO 250-110	69.23€	
01511600	MANIPULADO INJERTO A TUBO 250-125	73.03€	
01511610	MANIPULADO INJERTO A TUBO 250-160	90.20€	
01511620	MANIPULADO INJERTO A TUBO 250-200	149.7€	

11 - MANIPULADO INJERTO PARA TUBO CORRUGADO



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
0151185	MANIPULADO INJERTO A TUBO CORRUGADO 400-110		170.13€
01511860	MANIPULADO INJERTO A TUBO CORRUGADO 400-125		218.32€
01511870	MANIPULADO INJERTO A TUBO CORRUGADO 400-160		214.44€
01511880	MANIPULADO INJERTO A TUBO CORRUGADO 400-200		269.66€
01511890	MANIPULADO INJERTO A TUBO CORRUGADO 400-250		320.00€
01511900	MANIPULADO INJERTO A TUBO CORRUGADO 400-315		380.25€

****OTRAS MEDIDAS CONSULTAR**

12 - MANIPULADO DEFLECTOR



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01512010	MANIPULADO DEFLECTOR 75		29.61€
01512020	MANIPULADO DEFLECTOR 90		39.46€
01512030	MANIPULADO DEFLECTOR 110		49.48€
01512040	MANIPULADO DEFLECTOR 125		59.39€
01512050	MANIPULADO DEFLECTOR 160		73.90€

13 - MANIPULAT DEFLECTOR AMB PARAVIENTOS



<u>Article</u>	<u>Descripcio</u>	<u>U.Pvp</u>	<u>PVP</u>
01512110	MANIPULADO DEFLECTOR CON PARAVIENTOS 75		38.07€
01512120	MANIPULADO DEFLECTOR CON PARAVIENTOS 90		50.61€
01512130	MANIPULADO DEFLECTOR CON PARAVIENTOS 110		63.71€
01512140	MANIPULADO DEFLECTOR CON PARAVIENTOS 125		76.15€
01512150	MANIPULADO DEFLECTOR CON PARAVIENTOS 160		95.21€