



abn

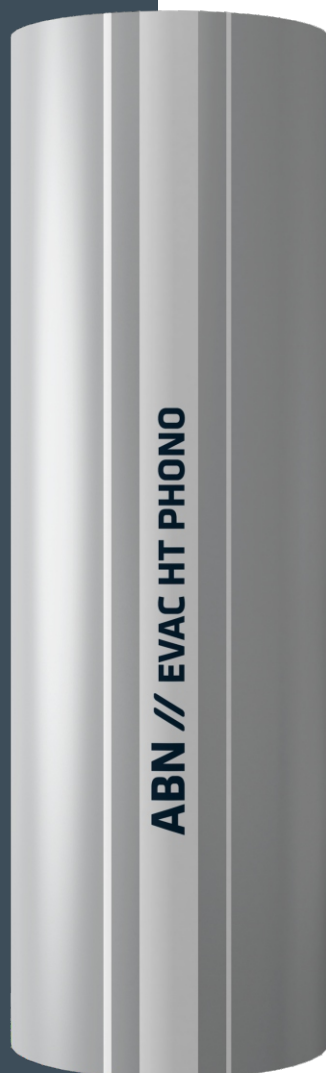
Ficha técnica

Technical data sheet

05/2025
V.2

ABN // EVAC HT PHONO

SISTEMA DE TUBERÍAS INSONORIZADAS
PARA EVACUACIÓN
SOUND-INSULATED BUILDING
DRAINAGE SYSTEM



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EL PRODUCTO | THE PRODUCT

Descripción tipo

TUBO DE POLIPROPILENO PP, ABN// EVAC HT PHONO

Tubería de evacuación insonorizada ABN// EVAC HT PHONO, fabricada en PP multicapa para evacuación de aguas pluviales, residuales y ventilación, libre de halógenos. Capa externa en PP color gris RAL 7046 con bandas blancas RAL 9003, capa intermedia en PP con carga mineral, y capa interna en PP, color blanco RAL 9003. Diámetro exterior ---- mm, y espesor ---- mm, con extremo abocardado para unir por junta elástica, i/p.p. codos, derivaciones y demás accesorios, fabricada según UNE EN 1451 cons ensayo Frunhofer . Instalada según normativa vigente.

Text for tenders

POLYPROPYLENE PIPE, ABN//EVAC HT PHONO

Sound absorbing drainage pipe ABN // EVAC HT PHONO, made of multilayer PP for rainwater and wastewater drainage, halogen free. External layer in grey RAL 7046 PP with white strips RAL 9003, intermediate layer in mineral-filled PP, and internal layer in PP, in white RAL 9003 colour. External diameter ---- mm, and thickness ---- mm, with elastic joint.

Proportional share of elbows, branches and other fittings, manufactured according to UNE EN 1451. Installed according to current regulations.



1

Capa externa en PP, gris RAL 7046 con blancas RAL 9003. polipropileno empleado en su fabricación le aporta una elevada resistencia al impacto, incluso a bajas temperaturas.

External layer in PP, in grey RAL 7046 with white strips RAL 9003. The polypropylene used in its manufacture gives it a high impact resistance, even at low temperatures.

2

Capa intermedia en PP+carga mineral en color negro RAL 9004. El refuerzo mineral de la capa intermedia aporta una mayor rigidez, seguridad y estabilidad, además de su capacidad de fonoabsorbencia.

Intermediate layer in PP + mineral filled in black RAL 9004. The mineral reinforcement of the intermediate layer provides greater rigidity, security and stability, in addition to its sound absorbing capacity.

3

Capa interna en PP, color blanco RAL 9003. Esta capa extremadamente lisa minimiza las incrustaciones provocadas por grasas, aceites o detergentes. Le aporta una alta resistencia al agua caliente (hasta 95°C), a sustancias químicas y a la abrasión. Su color claro facilita su inspección interna.

Inner layer in PP, The extremely smooth of this layer minimizes scale caused by greases, oils or detergents. It provides high resistance to hot water (up to 95°C), chemical substances and abrasion. Its light color facilitates its internal inspection.

USOS PRINCIPALES | MAIN SYSTEMS



EVACUACIÓN DE AGUAS RESIDUALES



SISTEMAS DE VENTILACIÓN
VENTILATION SYSTEMS



EVACUACIÓN DE AGUAS PLUVIALES POR GRAVEDAD
RAINWATER DRAINAGE



EXTRACCIÓN DE CAMPANAS
EXTRACTION OF HOODS

VENTAJAS | BENEFITS



INSONORIZADA
SOUND-INSULATED



VERSÁTIL
VERSATILE



MENOR IMPACTO AMBIENTAL
LOWER ENVIRONMENTAL IMPACT



ECONÓMICO Y EFICIENTE
COST SAVING AND EFFICIENT

CARACTERÍSTICAS DIFERENCIADORAS | DIFFERENTIATING FEATURES



LIBRE DE HALÓGENOS
HALOGEN FREE



CLASIFICADO ANTISÍSMICO
ASEISMATIC



RESISTENTE A ALTAS Y BAJAS
TEMPERATURAS (-20 A 95°C)
RESISTANT TO TEMPERATURES FROM-



RECICLABLE
RECYCLABLE



ECOLÓGICO
ECOLOGICAL

LUGARES DE APLICACIÓN | MAIN APPLICATIONS



HOTELS
HOTELS



HOSPITALES
HOSPITALS



CENTROS
COMERCIALES
SHOPPING
CENTRES



GARAJES
GARAGES



EDIFICIOS
INSTITUCIONALES
INSTITUTIONAL
BUILDINGS



EDIFICIOS DE
OFICINAS
OFFICE BUILDINGS



AEROPUERTOS
AIRPORTS



EDIFICIOS
RESIDENCIALES
RESIDENTIAL



EDIFICIOS
PENITENCIARIOS
PENITENTIARY



INSTALACIONES
DEPORTIVAS
SPORTS FACILITIES



CENTROS
DOCENTES
TEACHING



MUSEOS
MUSEUMS

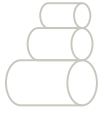


EDIFICIOS
INDUSTRIALES
INDUSTRIAL



CINES Y TEATROS
CINEMAS AND
THEATRES

Tuberías | Pipes



GAMA DE PRODUCTO / PRODUCT RANGE									Impacto ambiental Environmental impact					
CÓDIGO Code	DIÁMETRO Diameter		ESPESOR thickness		LONGITUD length		PESO weight		Energía Energy	Co2 (kg)	Agua Water	Compr. con RoHS	Uso alimet. Food use	Fin de vida útil End of firts life
	(mm)	(in)	(mm)	(in)	(m)	(ft)	(kg/m)	(lb/ft)	(MJ)		(litros)	RoHS		
80HTEP0400500 80HTEP0401000 80HTEP0403000	40	1 1/4"	1.8 1.8 1.8	0.070 0.070 0.070	0.50 1.00 3.00	1.64 3.28 9.84	0.136 0.260 0.755	0.983 1.880 5.460	4.609 8.799 25.558	0.360 0.686 1.994	3.214 6.136 17.824			
80HTEP0500500 80HTEP0501000 80HTEP0503000	50	1 1/2"	1.8 1.8 1.8	0.070 0.070 0.070	0.50 1.00 3.00	1.64 3.28 9.84	0.175 0.331 0.956	1.265 2.394 6.914	5.921 11.208 32.355	0.462 0.874 2.524	4.129 7.816 22.564			<input type="checkbox"/> Reutilizar/ Re-use
80HTEP0750500 80HTEP0751000 80HTEP0753000	75	2 1/2"	1.9 1.9 1.9	0.074 0.074 0.074	0.50 1.00 3.00	1.64 3.28 9.84	0.318 0.599 1.725	2.300 4.332 12.476	10.758 20.278 58.359	0.839 1.582 4.553	7.502 14.142 40.699			<input checked="" type="checkbox"/> Reciclar/ Recycle
80HTEP0900500 80HTEP0901000 80HTEP0903000	90	3"	2.2 2.2 2.2	0.086 0.086 0.086	0.50 1.00 3.00	1.64 3.28 9.84	0.467 0.877 2.516	3.377 6.343 18.198	15.807 29.674 85.139	1.233 2.315 6.642	11.024 20.694 59.376			<input type="checkbox"/> Ciclo de degradación/ Downcycle
80HTEP1100500 80HTEP1101000 80HTEP1103000	110	4"	2.7 2.7 2.7	0.106 0.106 0.106	0.50 1.00 3.00	1.64 3.28 9.84	0.734 1.367 3.898	5.309 9.887 28.194	24.837 46.248 131.891	1.938 3.608 10.289	17.321 32.253 91.981	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Combustión/ Combustion
80HTEP1250500 80HTEP1251000 80HTEP1253000	125	5"	3.1 3.1 3.1	0.122 0.122 0.122	0.50 1.00 3.00	1.64 3.28 9.84	0.913 1.694 4.817	6.603 12.252 34.841	30.909 57.328 163.001	2.411 4.472 12.716	21.556 39.980 113.677			<input type="checkbox"/> Vertedero/ Landfill
80HTEP1600500 80HTEP1601000 80HTEP1603000	160	6"	3.9 3.9 3.9	0.153 0.153 0.153	0.50 1.00 3.00	1.64 3.28 9.84	1.511 2.781 7.862	10.929 20.115 56.865	51.146 94.125 266.043	3.990 7.343 20.755	35.669 65.643 185.538			
80HTEP2000500 80HTEP2001000 80HTEP2003000	200	8"	4.9 4.9 4.9	0.192 0.192 0.192	0.50 1.00 3.00	1.64 3.28 9.84	2.546 4.535 12.492	18.415 32.801 90.350	85.163 153.478 422.739	6.722 11.973 32.980	60.090 107.036 294.818			
80HTEP2503000	250	10"	6.2	0.244	3.00	9.84	19.033	137.665	644.092	50.248	449.190			



Tipo de unión | Connection system

Junta elástica | Elastic joint

Accesorios | Fittings



Material | Material
pp

Color | Colour
Gris | Grey

CARACTERÍSTICAS DIFERENCIADORAS | DIFFERENTIATING FEATURES



LIBRE DE HALÓGENOS
HALOGEN FREE



RESISTENTE A ALTAS Y BAJAS
TEMPERATURAS (-20 A 95°C),
RESISTANT TO TEMPERATURES
FROM -20 UP TO 95°C,



CLASIFICADO ANTISÍSMICO
ASEISMATIC



ECOLÓGICO Y RECICLABLE
ECOLOGICAL AND
RECYCLABLE

GAMA ACCESORIOS INYECTADOS/ INJECTION-MOULDED FITTINGS

El sistema se completa con un amplia gama de accesorios de PP H estándar fabricados según la norma EN 1451 de diámetros comprendidos entre 40 a 200 mm.

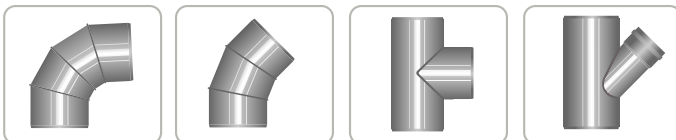
The system has a wide range of standard PP H fittings manufactured according to the EN 1451 standard with diameters from 1 1/4" to 8".



GAMA ACCESORIOS MANIPULADOS / HANDELED FITTINGS

La gama comprende accesorios manipulados de diámetro hasta 250 mm.

The range includes handeled fittings with diameters up to 10".



COMPLEMENTOS / ACCESSOIRES

El sistema ABN//EVAC HT PHONO dispone de otros complementos / The ABN // EVAC HT PHONO system have several accessories.





Valores técnicos | Technical values

Material	PP/ PP+CM/ PP
Densidad / Density	>1100 kg/m ³ según ISO 1183
Índice de fluidez (MFR) tubo / Melt mass flow rate (MFR)	<3,0 g/10 min según ISO 1133
Retracción longitudinal (150°C)/Longitudinal retraction	<0,45% según EN ISO 2506
Coefficiente de dilatación / Lineal expansion coefficient	0,08 mm/mK
Fabricación/Production	UNE EN 1451
Color	
Capa externa / Colour	
Capa externa / EXternal layer	Gris / Grey, RAL 7045
Capa central / intermediate layer	Negra / Black, RAL 9004
Capa interna / inner layer	Blanca / White, RAL 9003
Bandas / strips	Blanca / White, RAL 9003

VALORES ACÚSTICOS /ACOUSTIC VALUES

Ensayo acústico (Instituto FRUNHOFER)

Acoustic test (FRAUNHOFER Intuitive)

Wastewater system made of plastic "ABN EVAC HT PHONO PP, OD 110x2.7" with corresponding fittings (manufacturer: ABN Pipe Systems) mounted with pipe clamps "BISMAT® 1000" (manufacturer: Walraven). Test object no.: S 12159-1; 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 $L_{Wp,A}$ (50 Hz – 5 kHz) [dB] in the installation room (source room)	50.8	53.9	55.3	58.7
a) Example of SNQ for heavy buildings acc. DIN EN 12354-5, Annex G.4.2: Apparent structure-borne sound pressure level (receiving room) $L'_{ne,s,A}$ (50 Hz – 3150 Hz) [dB]	11.7	14.3	17.2	21.5
b) Example of SNQ for lightweight buildings acc. DIN EN 12354-5, Annex G.4.3: Apparent structure-borne sound pressure level (receiving room) $L'_{ne,s,A}$ (50 Hz – 2500 Hz) [dB]	16.0	18.1	21.0	25.7

Note: - The SNQ obtained here shall not be used in context with requirements in any other buildings.

- $L'_{ne,s,A}$ corresponds to an $L_{Aeq,n}$.

- 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.



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, May 2nd, 2024
Head of the test laboratory:



Normas | Standards

El sistema ABN//EVAC HT PHONO cumple y supera las siguientes normas.
ABN // EVAC HT PHONO meets and exceeds the following standards.


- **RP 01.00:** Reglamento Particular de la marca AENOR para materiales plásticos. Requisitos comunes.
 - **R.P. 01.55:** Reglamento Particular de la Marca AENOR para tubos de polipropileno (PP) para la evacuación de aguas residuales (a baja y alta temperatura) en el interior de la estructura de los edificios.
 - **UNE EN 1451** Sistemas de canalización en materiales plásticos para evacuación de aguas residuales (a baja y a alta temperatura) en el interior de la estructura de los edificios. Polipropileno (PP). Especificaciones para tubos, accesorios y el sistema.
 - **UNE EN 12354-5** - Acústica de la edificación. Estimación de las características acústicas de las edificaciones a partir de las características de sus elementos. Parte 5: Niveles sonoros producidos por los equipos técnicos de las edificaciones.
 - **UNE EN 14366-1** - Medición en laboratorio del ruido aéreo y estructural del equipamiento técnico. Parte 1: Reglas de aplicación para las instalaciones de evacuación de aguas residuales.
- **RP 01.00:** *Particular Regulations of AENOR for plastic materials. Common requirements.*
 - **R.P. 01.55:** *Particular Regulation of AENOR for polypropylene (PP) pipes for the drainage of wastewater (low and high temperature) within the building structure.*
 - **UNE EN 1451** - *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - Part 1: Specifications for pipes, fittings and the system.*
 - **UNE EN 12354-5** - *Building acoustics - Estimation of acoustic performance of buildings from the performance of elements - Part 5: Sounds levels due to the service equipment*
 - **UNE EN 14366-1** - *Laboratory measurement of airborne and structure-borne sound from service equipment - Part 1: Application rules for waste water installations*



Certificados | Certificates

Test Report P-BA 90/2024e

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



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 Leistner

Client: ABN Pipe Systems
Parque Empresarial Medina ON, Autovía A-6, KM 152
47400, Medina del Campo
España



Test specimen: Wastewater system made of plastic *ABN EVAC HT PHONO PP, OD 110x2,7* with corresponding fittings (manufacturer: ABN pipe systems) mounted with pipe clamps *BISMAT* 1000* (manufacturer: Walkewen).

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 April 25th, 2024 in the test facilities of the Fraunhofer Institute for Building Physics in Stuttgart.



Stuttgart, May 2nd, 2024

Test Engineer:	Head of the test laboratory:
	
M.Sc. B. Kaltbeitzel	M.BP. 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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www.pruflabor.fraunhofer.de/en/Test_Laboratories.html



Ensayo acústico UNE EN 14366
Acoustic test UNE EN 14366

Miembro de:



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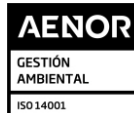
PLANTA DE PRODUCCIÓN

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Distribuidor/ Distributor



Manufactured
in
Spain 

PACTO POR UNA ECONOMÍA CIRCULAR

