



PP-R PIPING SYSTEMS

HOT & COLD WATER | CHILLED & HEATING

PRODUCT BROCHURE





VESBO Global Headquarters and Plant

Established in Istanbul, Turkey in 1992, **Novaplast Plastik Sanayi ve Ticaret A.Ş.** is a subsidiary of Kar Group of Companies in the manufacturing of VESBO Polypropylene Random Co-polymer (PP-R) pipes and fittings. Novaplast Plastik also produces a full range of thermoplastic piping products in extrusion and injection moulding such as PE-X, U-PVC, PE, Spira and Incola.

As VESBO global headquarters, Novaplast Plastik is responsible for strategic planning, corporate governance, government relations, management policies and Health, Safety and Environment policies of the company, as well as Total Quality Management and product development for VESBO worldwide. VESBO export department is responsible for European, Mediterranean and Middle East markets.



VESBO Asia Pacific Head Office

Located in Singapore, **Vesbo Asia Pte. Ltd.** is a subsidiary of KAR Group of Companies, and is the Asia Pacific headquarters and marketing arm of VESBO. It is responsible for strategic planning, business development, marketing, distributorship and operations of Novaplast manufactured VESBO products in the Asia Pacific region.



German Engineering Arm of VESBO

Located in Munich, Germany, **Arcon Handels GmbH** is the engineering arm of VESBO PP-R pipes and fittings. It is responsible for the research and product development of VESBO products as well as the supply of machineries and raw materials from Germany.



QUALITY
ASSURANCE



CUSTOMER
CARE



SAFETY, HEALTH
AND COMFORT



CONSTANT
INNOVATION



SUSTAINABLE
ENVIRONMENT



Hygiene & Health Concerns

Health is a major consideration in the production of VESBO pipes and fittings. **Connection of pipes does not require additives such as cement solvent, fluxes or solder.**

To ensure the safety of VESBO pipes and fittings for usage relating to human contact and consumption with potable water, the following standards are strictly adhered to:

Standards	Requirements
DIN 1988 Part 2	<ul style="list-style-type: none"> Drinking Water Supply Systems, Materials, Components, Appliances, Design and Installation
KTW	<ul style="list-style-type: none"> Recommendations Federal Health Office, Germany
DVGW	<ul style="list-style-type: none"> Test Certificate based on KTW recommendations for Materials in Contact with Drinking Water
WRc	<ul style="list-style-type: none"> Test Certificate Water Bylaws Scheme / WRc, Tests of Effect on Water Quality based on BS 6920
SS375	<ul style="list-style-type: none"> Singapore Standard Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water

VESBO Compliance to Standards and Requirements for Potable Water Pipes and Fittings

UV Resistance

VESBO products are produced with UV stabilisers. However, like all other piping systems including metal pipe works, VESBO products should not be exposed to direct sunlight without insulation or protection against sunlight or UV radiation.

For applications where constant UV exposure is expected, VESBO UV/Solar pipes should be used. For prolonged lifespan, a protective paint in black or a jacket is recommended.

Fire Classification

VESBO pipes and fittings comply with and are classified under the requirements of the following fire classifications:

- Class B2 according to DIN 4102
- Class 2 or B according to ASTM E84
- Class E in accordance with EN13501-1: 2007+A1: 2009

Under such classifications, it is normally inflammable and is capable of resisting, for a short period, a small flame attack without substantial flame spread.

In case of a fire outbreak of temperatures above 800°C, under ideal conditions and with sufficient oxygen, only carbon dioxide and water vapour are produced as the raw material of Polypropylene Random Co-polymer is of a hydrocarbon chain. Toxic fumes or dioxin will not be emitted.

Sound Insulation

Compared with metal pipes, VESBO products do not need further insulation to reduce decibel levels when water flows at relatively high speeds. While metals transmit noises quicker and louder, plastics dampen noises. Hence “whistling” and noises resulting from water hammer effect are largely reduced to none.








Why Choose VESBO PP-R Piping

1. Not detrimental to human health
2. Rust and corrosion free
3. Rupture free
4. No scaling
5. High resistance to acids and chlorides
6. Noise free at high flow rates
7. High pressure tolerances and rating
8. Insulation is not necessary for interior applications
9. Lightweight
10. Speed and ease of fusion technology
11. Extensive savings in time and labour

Quality Assurance & Health Certifications

Production Quality Certificates

- DIN EN ISO 9001: 2008 Design, Production, Marketing and Sales of VESBO Plastic Pipes and Fittings and Miscellaneous Parts
- BS OHSAS 18001: 2007 Occupational Health and Safety Management Systems
- EN ISO 14001: 2005 Environmental Management Systems

Country	Certifications
 GERMANY	<ul style="list-style-type: none"> • SKZ German Plastic Institute • KTW Federal Health Office • DVGW German Technical and Scientific Association for Gas and Water – Test Certificate based on KTW recommendations for materials in contact with drinking water
 UK	<ul style="list-style-type: none"> • WRC Water Byelaws Scheme / Wrc, Test Effect on Water Quality based on BS 6920
 SPAIN	<ul style="list-style-type: none"> • AENOR The Spanish Association for Standardisation and Certification
 RUSSIAN FEDERATION	<ul style="list-style-type: none"> • GOST-R State Committee of the Russian Federation for Standardisation and Metrology • Russian Federation Ministry of Health – Sewerage Department, Recommendations for materials in contact with drinking water
 ROMANIA	<ul style="list-style-type: none"> • ICECON Test Approval Certificate
 POLAND	<ul style="list-style-type: none"> • TIN • PZH
 TURKEY	<ul style="list-style-type: none"> • TSE Turkish Standards Institute

Country	Certifications
 THE NETHERLANDS	<ul style="list-style-type: none"> • KIWA Test Report on Oxygen Permeability of PE-X Pipes
 PHILIPPINES	<ul style="list-style-type: none"> • Industrial Technology Development Institute Standards and Testing Division
 SINGAPORE	<ul style="list-style-type: none"> • PSB TUV SUD Productivity and Standards Board • SGBC, Singapore Green Building Council
 MALAYSIA	<ul style="list-style-type: none"> • SIRIM, Product Certification • SPAN, Malaysia National Water Services Commission, Approved Product Supplier
 CHINA	<ul style="list-style-type: none"> • Shanghai Building Material Quality and Inspection Testing Center Certification • Shanghai Health Bureau Approval
 VIETNAM	<ul style="list-style-type: none"> • Trung Tam Do Luong (Vietnam Metrology Institute, Directorate For Standards And Quality)
 INDONESIA	<ul style="list-style-type: none"> • BPPT, Badan Pengkajian Dan Penerapan Teknologi • ITS, Institute Teknologi Sepuluh



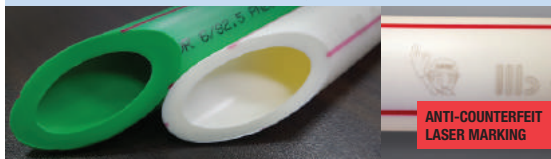
Certification	Country	Certification	Country
TÜV-CERT EN ISO 9001:2008	GERMANY	KIWA	THE NETHERLANDS
TÜV-CERT EN ISO 14001:2004	GERMANY	GOST-R	RUSSIAN FEDERATION
SKZ	GERMANY	MA	CHINA
DVGW	GERMANY	PSB	SINGAPORE
HYGIENE INSTITUT	GERMANY	SGBC	SINGAPORE
AENOR	SPAIN	SIRM QAS	MALAYSIA
		CERTIF	PORTUGAL

VESBO Certifications Around the World

PP-R HOT AND COLD POTABLE WATER

VESBO® PP-R PIPES MONO CLASSIC SERIES

MATERIAL	: PP-R 80 RANDOM COPOLYMER
PIPE RATING	: PN10(S5) PN16 (S3.2) PN20 (S2.5)
FEATURES	: EXCELLENT QUALITY, HIGH PRESSURE RATING, HIGH TEMPERATURE, LIFE SPAN OF 50 YEARS



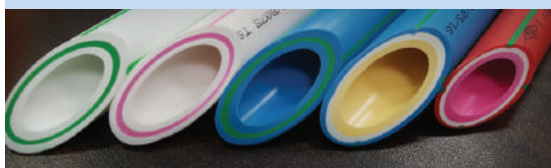
VESBO® PP-R PIPES MULTILAYER-3 SERIES

MATERIAL	: PP-R 80 RANDOM COPOLYMER
PIPE RATING	: PN10(S5) PN16 (S3.2) PN20 (S2.5)
FEATURES	: EXCELLENT QUALITY, HIGH PRESSURE RATING, HIGH TEMPERATURE, LIFE SPAN OF 50 YEARS



VESBO® PP-R PIPES MULTILAYER-3 SERIES

MATERIAL	: PP-R 80 RANDOM COPOLYMER
PIPE RATING	: PN10(S5) PN16 (S3.2) PN20 (S2.5)
FEATURES	: EXCELLENT QUALITY, HIGH PRESSURE RATING, HIGH TEMPERATURE, LIFE SPAN OF 50 YEARS



VESBO® PP-R PIPES MULTILAYER-3 SERIES

MATERIAL	: PP-R 80 RANDOM COPOLYMER
PIPE RATING	: PN10(S5) PN16 (S3.2) PN20 (S2.5)
FEATURES	: OUT-DOOR UV PROTECTION, EXCELLENT QUALITY, HIGH PRESSURE RATING, HIGH TEMPERATURE, LIFE SPAN OF 50 YEARS



VESBO® PP-R FITTINGS



HEAD OFFICES

Global / European

NOVAPLAST PLASTİK SANAYİ VE TİCARET A.Ş.

Otakçılar Cd. No.80 Eyup
Istanbul, Turkey

T: +90 212 467 77 30 F: +90 212 467 77 38

Asia Pacific

VESBO ASIA PTE LTD

No. 71 Bukit Batok Crescent #06-04
Prestige Centre, Singapore 658071
T: +65 6684 3895 F: +65 6684 3896

MANUFACTURING PLANTS

Izmit, Turkey

NOVAPLAST PLASTİK SANAYİ VE TİCARET A.Ş.

Karadenizliler Mah. Basyigit Cad. No:16

Nigde, Turkey

NOVAPLAST PLASTİK SANAYİ VE TİCARET A.Ş.

Organize Sanayi Bölgesi 9. Cadde No: 10
T: +90 388 225 02 11 F: +90 388 225 02 14

EXCLUSIVE DISTRIBUTOR FOR THE PHILIPPINE REGION:



**TECHGLOBAL
INCORPORATED**
VESBO • VASEN • ROHRFLEX • ECOTECH

T: (02) 997-0972 / (02) 998-8758 / (02) 782-2262 F: (02) 533-8431
C: +63917-813-8480 / +63933-855-6327 / +63998-542-1965
E: sales@techglobal.com.ph
W: www.techglobal.com.ph

SUBSIDIARIES

Germany

ARCON GMBH

Russia

VESBO EURASIA

Kazakhstan

VESBO KZ

Macedonia

VESBO BALKANS

France

VESBO FRANCE SAS

DISTRIBUTOR & RESELLER COUNTRIES

Afghanistan	Hungary	Poland
Albania	India	Portugal
Algeria	Indonesia	Qatar
Angola	Iran	Romania
Argentina	Iraq	Russia
Armenia	Italy	Saudi Arabia
Azerbaijan	Jordan	Serbia and Montenegro
Bahrain	Kazakhstan	Seychelles
Belarus	Kyrgyzstan	Singapore
Bosnia and Herzegovina	Kuwait	Slovakia
Brunei	Latvia	South Africa
Bulgaria	Lebanon	Spain
Myanmar	Libya	Sudan
Cape Verde	Lithuania	Syria
Chile	Macedonia	Taiwan
China	Madagascar	Tanzania
Colombia	Malaysia	Tunisia
Cuba	Maldives	Turkey
Czech Republic	Mexico	Turkmenistan
Ecuador	Morocco	Uganda
Egypt	Mozambique	Ukraine
Ethiopia	Oman	United Arab Emirates
France	Pakistan	United States
Georgia	Panama	Uzbekistan
Germany	Paraguay	Vietnam
Greece	Peru	
	Philippines	