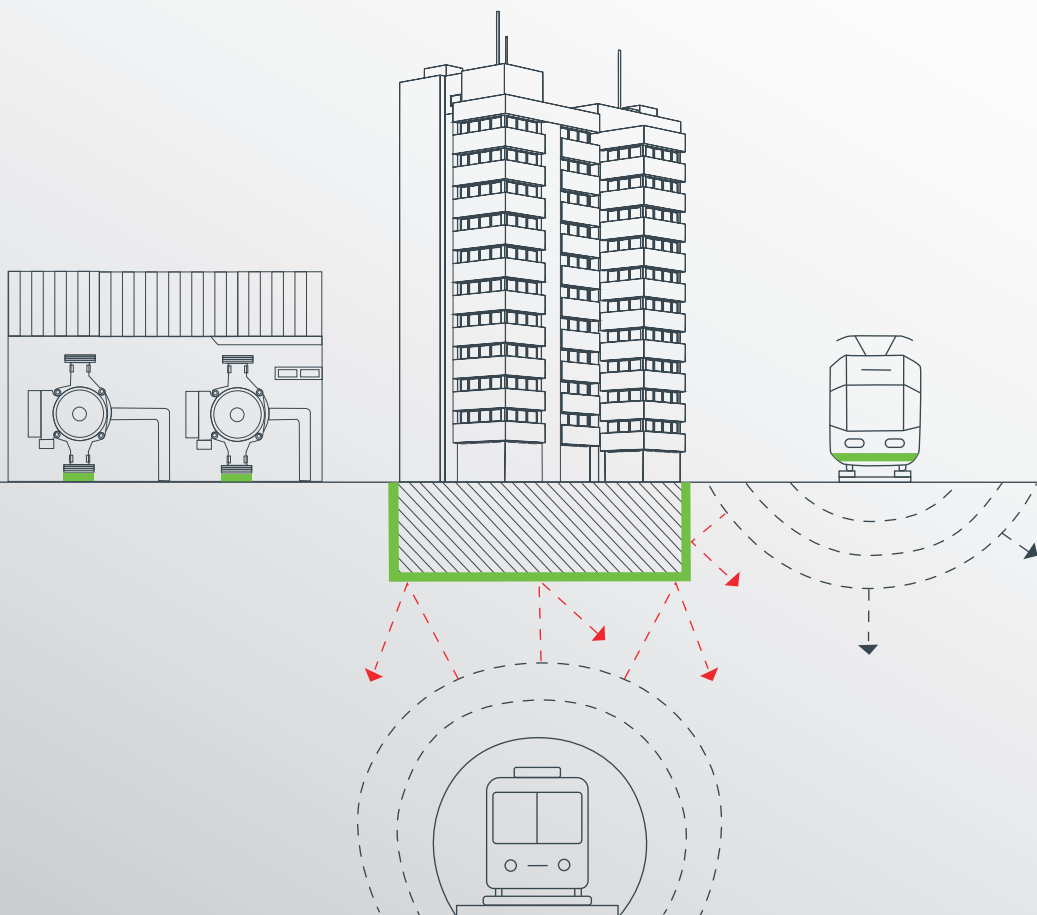


NEW GENERATION VIBRATION-ISOLATING MATERIAL **GENER VX**





GAVARY GROUP TECHNOLOGICAL HOLDING

Manufacturer of the industrial vibration-isolating material line Gener VX.
The holding specializes in innovative polymer materials for a wide range of applications – from automotive to industrial use in industrial and civil construction (ICC).

Combining advanced scientific practices, engineering solutions from leading European teams, and researches from its own R&D Center, the holding successfully implements infrastructure projects and develops import-substituting products and solution.

PARTNERS:



SOUNDPROOFING EUROPEAN TECHNOLOGIES LLC

Exclusive distributor of vibration-isolating material Gener VX

SoundGuard's mission: Creating comfortable living and working spaces

Key business areas:

1. Development of innovative and effective soundproofing solutions a wide range of civil construction projects;
2. Production of professional soundproofing materials, vibration-isolating products, and fasteners;
3. Turnkey implementation of acoustic design for various types of facilities;
4. Exclusive distribution of polymer composite materials Gener VX for vibration-isolating of industrial and civil construction facilities.



GENER VX

Composition based on complex elastomer blend

A chemically cross-linked foamed elastomer with a closed-cell structure. Designed for harsh climatic conditions in Russia, it offers exceptional resistance to dynamic loads, superior elasticity, and reliability.

Properties:



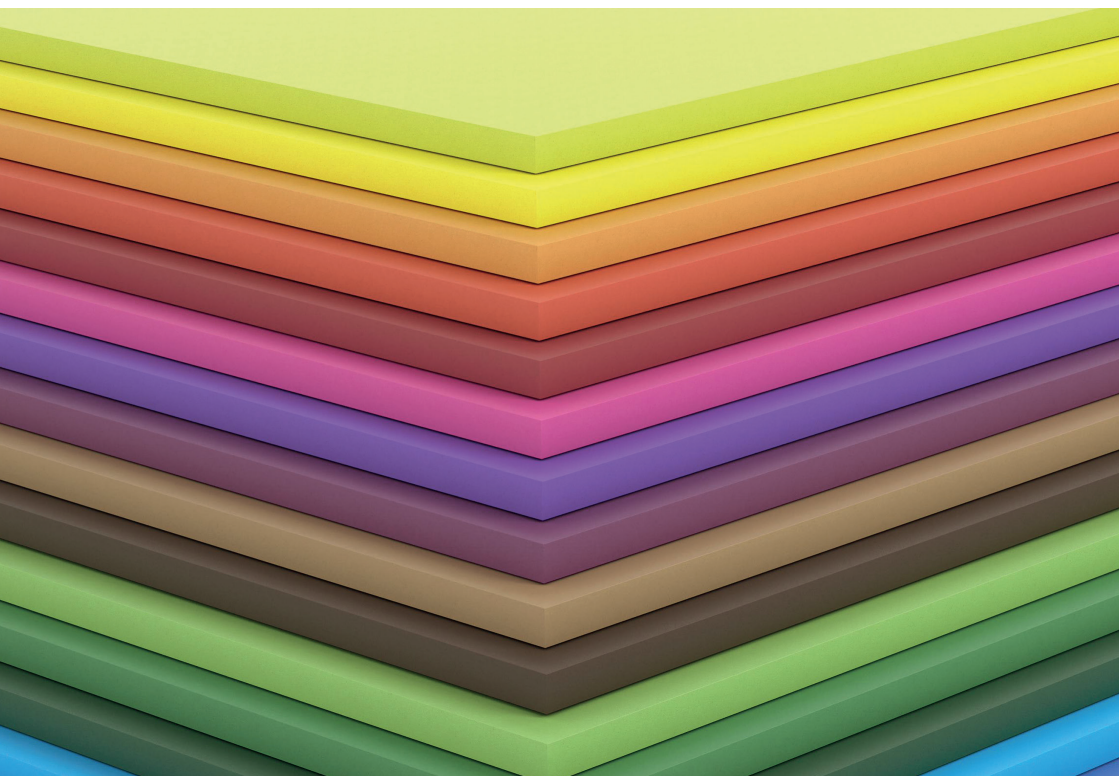
High elasticity



Porous material with closed-cell structure



Combines vibration-isolating and damping characteristics



TECHNICAL PROPERTIES

Durability

Durability is critical for vibration-isolating materials in construction and industry applications.

Most elastic materials lose their properties under prolonged static loads. Based on the results of long-term climatic and life cycle tests in independent laboratories, vibration-insolating mats Gener VX have been proven to retain vibration-isolating characteristics at the required level throughout the life of the facility for up to 100 years.

Static load range

Material Gener VX is capable of handling a wide range of static loads. 17 sizes are produced as standard program, from 0.011 N/mm 2 to 3.0 N/mm 2. Special marks can be introduced to meet the project requirements. For example, with a static load of 3.5 N/mm 2 (300, 500 t/m²).

Chemical resistance

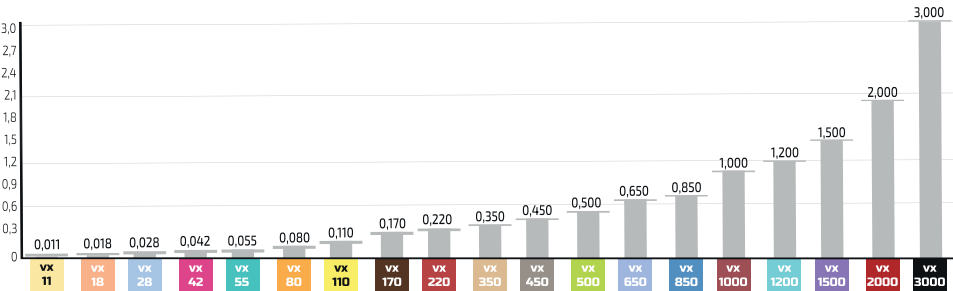
Materials Gener VX are used in a variety of industrial and construction applications. An extremely important factor for the long-term effective performance of a material is its resistance to the aggressive environments with which it comes into contact. Gener VX has excellent resistance to water and aqueous salt solutions and does not absorb moisture. The effect of moisture on static and dynamic modulus of elasticity is negligible even when the material is completely immersed in water.

Temperature range

The material is tested for long-term use in the temperature range from -60 to +50 °C.

Line of materials GENER VX:

Statistical load limit, N / mm²



PHYSICAL AND TECHNICAL PROPERTIES OF GENER VX VIBRATION-ISOLATING MATS

Name	Length	Width	Thickness	Maximum static load capacity	Mechanical loss tangent	Dynamic modulus of elasticity	Creep (relative deformation after 50 years)
Gener VX11	1200 mm	2500 mm	12,5mm	0,011N/mm²	0,14	0,24N/mm²	<30%
			25mm				
Gener VX18	1200 mm	2500 mm	12,5mm	0,018N/mm²	0,14	0,35N/mm²	<30%
			25mm				
Gener VX28	1200 mm	2500 mm	12,5mm	0,028N/mm²	0,14	0,48N/mm²	<30%
			25mm				
Gener VX42	1200 mm	2500 mm	12,5mm	0,042N/mm²	0,15	0,75N/mm²	<30%
			25mm				
Gener VX55	1200 mm	2500 mm	12,5mm	0,055N/mm²	0,15	0,83N/mm²	<30%
			25mm				
Gener VX80	1200 mm	2500 mm	12,5mm	0,008N/mm²	0,16	1,4N/mm²	<30%
			25mm				
Gener VX110	1000 mm	2000 mm	12,5mm	0,11N/mm²	0,14	1,5N/mm²	<30%
			25mm				
Gener VX170	1000 mm	2000 mm	12,5mm	0,17N/mm²	0,15	2,1N/mm²	<30%
			25mm				
Gener VX220	1000 mm	2000 mm	12,5mm	0,22N/mm²	0,12	3,4N/mm²	<30%
			25mm				
Gener VX350	1000 mm	2000 mm	12,5mm	0,35N/mm²	0,14	4,9N/mm²	<30%
			25mm				
Gener VX450	1000 mm	2000 mm	12,5mm	0,45N/mm²	0,14	5,9N/mm²	<30%
			25mm				
Gener VX500	1000 mm	2000 mm	12,5mm	0,50N/mm²	0,14	7,30N/mm²	<30%
			25mm				
Gener VX650	1000 mm	2000 mm	12,5mm	0,65N/mm²	0,13	9,5N/mm²	<25%
			25mm				
Gener VX850	1000 mm	2000 mm	12,5mm	0,85N/mm²	0,12	14,6N/mm²	<25%
Gener VX1000	1000 mm	2000 mm	12,5mm	1,0N/mm²	0,12	15,7N/mm²	<30%
Gener VX1200	1000 mm	2000 mm	12,5mm	1,2N/mm²	0,12	19N/mm²	<25%
Gener VX1500	1000 mm	2000 mm	12,5mm	1,5N/mm²	0,12	23N/mm²	<25%
Gener VX2000	1000 mm	2000 mm	12,5mm	2,0N/mm²	0,1	65,6N/mm²	<30%
Gener VX3000	1000 mm	2000 mm	12,5mm	3,0N/mm²	0,1	110,8N/mm²	<30%

APPLICATIONS **GENER VX**

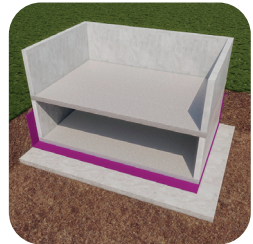


BUILDING VIBRATION-ISOLATING

The main sources of vibration include nearby metro lines, highways, railways, tram tracks, industrial facilities, and power equipment. The use of professional composite polymers GENER VX in the design of buildings located in areas exposed to constant vibration and sound makes it possible to effectively isolate vibrations and enhance the market value of such structures. GENER VX can be used as a full-surface, strip, or point support element. The optimal type of support is selected based on the required natural frequency and the structural characteristics of the building.

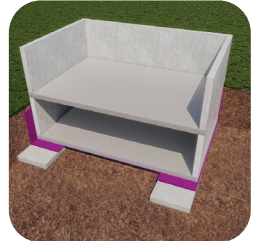
FULL-SURFACE SUPPORT (14–25 Hz)

GENER VX is laid in a uniform layer over the load-bearing base, providing isolation of the building foundation from the ground and ensuring even load distribution to the substructure. This method requires no changes to the building design and allows for fast installation.



STRIP SUPPORT (8–15 Hz)

Used in buildings with linear foundations or where loads are transferred along linear paths. The polymer layer is installed either at the foundation level or beneath the protected slab. This method is also suitable for isolating individual floors within a structure and is often applied beneath basement ceilings.



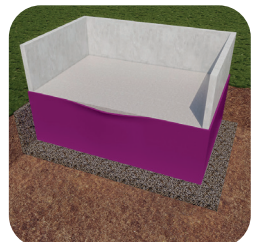
POINT SUPPORT (5–12 Hz)

Recommended for buildings constructed on pile foundations with separate pile caps or where the load is carried by individual columns. Point supports allow for the lowest achievable tuned frequencies and meet the highest standards for mechanical sound isolation.



VERTICAL INSTALLATION

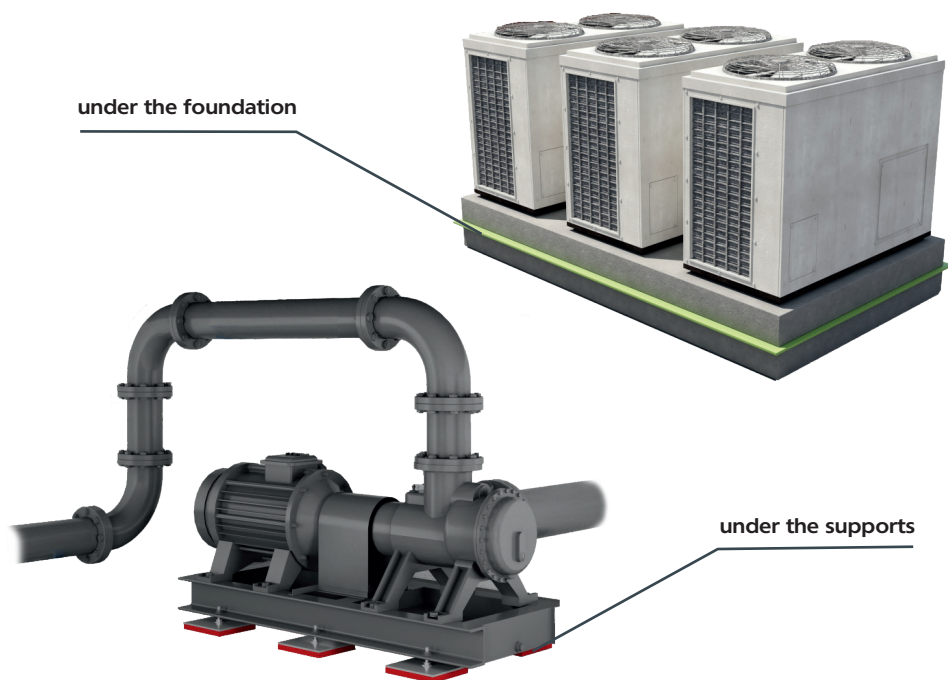
In addition to horizontal support layout, vertical installation is also possible. For example, basement side walls can be fully or partially isolated. This method is also applicable for retrofitting existing buildings.



VIBRATION-ISOLATING FOR MEP EQUIPMENT

Today, no building is complete without mechanical, electrical, and plumbing (MEP) systems. Structures made of concrete and steel tend to amplify and transmit structure-borne sound generated by installed equipment. An effective solution to reduce the transmission of structure-borne sound and vibrations is the use of vibration-isolating supports GENEER VX.

GENEER VX can be installed beneath the equipment foundation or directly under the equipment supports. Acoustic modeling is used to determine the most efficient vibration-isolating setup for each specific case.



VIBRATION-ISOLATING FOR INDUSTRIAL EQUIPMENT

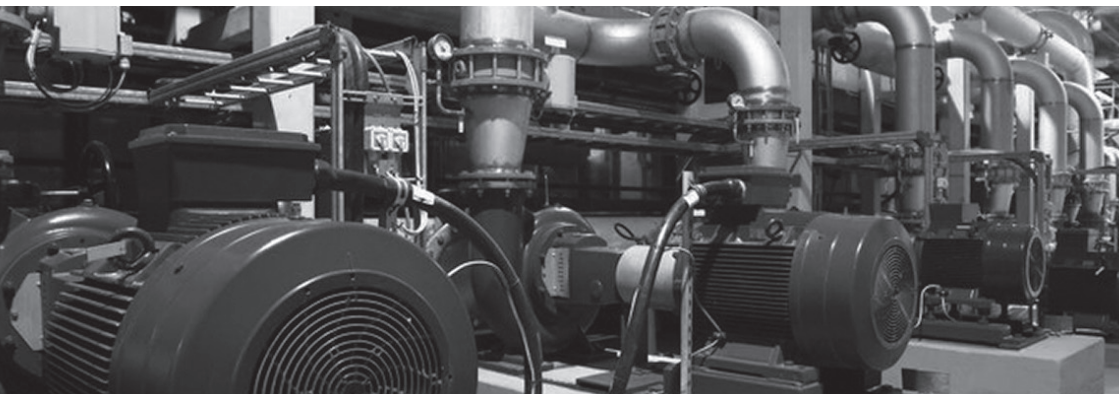
Specifics of vibration-isolating for equipment foundations

Heavy industrial machinery, such as presses, forging hammers, mills, and machine tools, generates significant dynamic loads on foundations. Massive foundations can partially redistribute and dampen these loads, but a portion of the vibrations is still transmitted into the surrounding environment. Soil settlement often occurs, leading to misalignment of the base structure.

Vibration-isolating for equipment foundations using vibration-isolating mats Gener VX allows for the use of smaller, lighter foundations while significantly reducing the dynamic load transmitted into the ground.

Advantages of materials Gener VX for machine foundation isolation:

- Reduction of vibrations near the equipment by at least 80% compared to standard foundations;
- Lower load on the subsoil – no need for expensive deep-pile foundations;
- Prevention of settlement and structural misalignment;
- Space savings due to more compact arrangement of equipment;
- Increased productivity by shortening transport routes and conveyor lines;
- Customized design developed by acoustic engineers for each specific project, tailored to operational requirements.





VIBRATION ISOLATION IN THE ENERGY SECTOR

Urbanization and the growth of cities are steadily reducing the distance between power-generating facilities and buildings such as residential complexes, hotels, business centers, and more. Vibrational impact negatively affects personnel and shortens the service life of load-bearing and enclosing building structures.

Constructing turbine foundations using materials Gener VX offers a more compact and cost-effective solution compared to traditional spring-based vibration isolators. Turbine foundations equipped with Gener VX supports significantly reduce harmful environmental impacts, particularly those affecting human health.

Applications of Gener VX in small hydropower plants, diesel and gas generators, and modular CHP units

Small hydropower plants are increasingly built on rivers and streams near populated areas. Materials Gener VX are effectively used to isolate vibrations generated by such installations. Diesel and gas generators, as well as modular combined heat and power (CHP) units, are often located close to or inside protected buildings.

Gener VX provides reliable vibration reduction and protects against structural sound.

VIBRATION-ISOLATING FOR RAILWAY TRANSPORT

Vibration-isolating for railcar bodies is relevant for both passenger and freight railway transport. Enhancement of railcar design is achieved by integrating an elastic element made from Gener VX, which functions as a damper. When solid components interact, the deformation of the damper leads to energy dissipation, significantly reducing vibrations generated by mechanical systems.

One of the most common railway applications of Gener VX is the production of floor supports for railcars. Thanks to the material's unique properties, Gener VX enables the implementation of tailored vibration-isolating solutions for railcars with varying degrees of structural complexity. Even after several decades of operation, vibration-isolating mats Gener VX used in floor support systems retain their performance characteristics.

Key benefits of vibration-insolating mats Gener VX:

- Excellent vibration insulation and decoupling in railcar structures;
- Stable technical properties over the long term;
- Wide range of variations Gener VX for different operational needs;
- High durability;
- Low weight;
- Easy installation.

The use of materials Gener VX ensures effective vibration and sound reduction in railcars, slows down wear of structural components, extends service life, and improves travel comfort for both passengers and crew.



WHERE TO BUY

HEAD OFFICE IN ST. PETERSBURG

ADDRESS:

St. Petersburg, Energetikov Avenue 9B, office 209

TELEPHONE:

Free call within the Russian Federation: 8 800 500 47 74

REPRESENTATIVE OFFICE IN MOSCOW

ADDRESS:

Moscow, Rubtsovskaya embankment, bld. 4, unit 2, room VIII

TELEPHONE:

Free call within the Russian Federation: 8 800 500 47 74

REGIONAL DEALERS

The extensive dealer network SoundGuard allows us to stay close to our customers and deliver an exceptional level of service.



