

JeoTes™ PHE GASKETS

JeoTes™ Engineering Inc. Co. is one of the biggest, extensive plate heat exchanger gasket manufacturer and supplier in Turkey. Designing and manufacturing gaskets has become one of the areas of specialty. JeoTes™ is manufacturing plate heat exchanger gaskets of all other brands by using its exceptional and advanced experiments.

JeoTes™ provides suitable polymer mixtures according to your requirements and working conditions. Each batch of compound is tested by our company laboratory for accurate properties of prior manufacturing. The exact and original dimensions are strictly adhered when the moulds are manufactured.

Since the very start of JeoTes™, we have formed the faith that quality is the way for our life that is the reason why JeoTes has grown to one of the leading of PHE gaskets suppliers. All the customers will be served as our partners on the path of progress and growth. JeoTes™ is one the exceptional companies of the world which can cover all your questions and requirements for all models of PHE brands. Regarding to this, JeoTes™ is unique in Turkey with this feature. Product range is including all of types and brands of gaskets from 0, 01 m² to 3 m².

The wide product range of Jeotes™ which you can use for every brand plate heat exchangers answer about their professionalism on subject.



- ▶ API Schmidt-Bretten,
- ▶ APV,
- ▶ APV-Pasilac,
- ▶ AGC,
- ▶ Alfa Laval,
- ▶ Ares,
- ▶ Arsopi,
- ▶ Barriquand,
- ▶ Bell&Gossett,
- ▶ Cardinale,
- ▶ Corblin,
- ▶ Cetetherm,
- ▶ Chester Jensen,
- ▶ Ciat,
- ▶ Cipriani,
- ▶ Danfoss,
- ▶ Fiorini,
- ▶ Fischer,
- ▶ Funke,
- ▶ GEA-Ahlborn,
- ▶ Hisaka,
- ▶ Hydac,
- ▶ Iria,
- ▶ ITT,
- ▶ Junkers,
- ▶ Kapp,
- ▶ Krashing,
- ▶ Mueller,
- ▶ MIT,
- ▶ Mastaş,
- ▶ Pasilac Kolding,
- ▶ Polaris,
- ▶ Reheat,
- ▶ Rosenblads,
- ▶ Sentry,
- ▶ Silkeborg,
- ▶ Sondex,
- ▶ Stork,
- ▶ Swep,
- ▶ Tanpera,
- ▶ Teknoplate,
- ▶ Termotrans,
- ▶ TetraPak,
- ▶ Thermaline,
- ▶ Thermowave,
- ▶ Tornado,
- ▶ Tranter,
- ▶ Türköz,
- ▶ Vesper,
- ▶ Vicarb,
- ▶ Viex,
- ▶ Vitherm,
- ▶ Wilo,
- ▶ Gaskets for all other PHEs.

ADVANTAGES OF JEOTES™ PHE GASKETS



Quality

Jeotes™'s pastes are prepared with certain audit and control. Samples which are picked up from each part of paste are tested and being stored with test results for several years. Paste mixtures are achieved with special recipes through Jeotes™'s accurate experience that comes from PHE and PHE applications. All products' samples are tested in the laboratory to check the suitability for the required specifications



Quick Service

You can contact to Jeotes™ for each hour of the day, ask details about storage, have technical support and give an order. Furthermore, you can take service 7/24. It is about intending to seize upon customers as partners and to serve with the highest standard as possible.



Delivery Time

Gasket Manufacturing is the main field of work of Jeotes™. Gaskets are always stored to cover the needs of customers within peak times. Whereas for loaded amounts, delivery time only includes the manufacturing time of gaskets. Jeotes™ is the only company that can deliver your PHE gasket in a short time.



Optimal Cost Warranty

Jeotes™ is a gasket manufacturer and orders directly from foreign suppliers that can't manufacture itself, so always undertakes the most suitable and economic prices with the same quality.



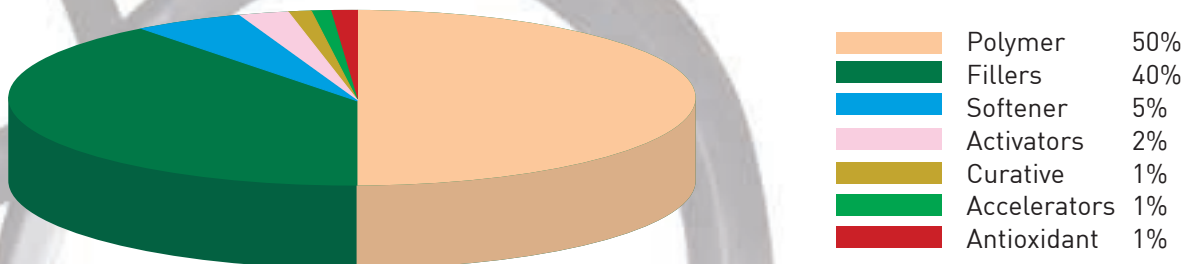
Professional Technical Support

There are plenty of PHE suppliers and models in Turkey and all over the world. Furthermore, most of the models are revised to cover the requirements in time. And this cause complication while supplying the gaskets.

Jeotes™ offers technical support due to your application, about selection of gasket materials and models, the renewing of gaskets in your workplace, PHE's maximum tightening limits etc. with its experienced, professional team and wide literature archive in a short time.

RUBBER MATERIALS

Rubber materials are blends of additives each rubber material is unique. In some cases the materials from different suppliers are very similar, and in other cases they are not. For example, advised usage temperature may vary between two companies for the same model NBR gasket. The most important ingredient is the polymer, which may vary from 15 to 70%. There is a typical gasket recipe as below:



All additives affect the properties of the rubber material. A rubber material developed for a certain product is seldom useful in other applications. For technically more advanced products there are always specially developed materials to fulfill the specific demand.

The synthetic polymers are manufactured to achieve special properties that Natural Rubber does not have. For example, such properties like resistance to oils and special chemicals, high temperature and weather (ozone, UV-light) is achieved with this method.

The standard rubber polymer for weather resistance or water/steam resistance is EPDM (Ethylene-Propylene Rubber), while Nitrile rubber (NBR) is the standard rubber polymer for oil resistance.

You can find some of gasket material of Jeotes™ as follows:

- NBR (Nitrile Butadiene Rubber)
- H-NBR (Hydrogenated Nitrile)
- EPDM (Ethylene Propylene Diene M-Class Terpolymer)
- EPDM-HT (High Temperature EPDM)
- IIR (Butil)
- ACM (Polyacrylic Rubber)
- CR (Neoprene)
- CSM (Hypalon)
- NR (Natural Rubber)
- PNR (Polinorbornen)
- T (Polysulphate Rubber)
- FKM (Fluorocarbon Rubber Viton®*)
- FFKM (Perflorelastomer)
- FVMQ (Florosilicon)
- PO (Polipropilen)
- FDA and water mixtures
- And a lot more...

COMPARATIVE PROPERTIES OF RUBBERS

ASTM Classifications

| | | | | | | | | | | |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| D1418 | EPDM | IIR | NBR | H-NBR | FKM | FVMQ | ACM | CR | CSM | NR |
| D2000 | DA | AA | BF | BF | HK | FK | DH | BC | CE | AA |
| Density | 0.86 | 0.92 | 1.00 | 1.00 | 1.85 | 1.47 | 1.09 | 1.23 | 1.10 | 0.93 |
| Hardness, Shore A | 75-90 | 70-80 | 75-85 | 75-85 | 60-95 | 40-70 | 40-90 | 20-95 | 45-95 | 20-90 |

Typical Tensile Strength

| | | | | | | | | | | |
|-----------------|----|----|----|----|----|----|----|----|----|----|
| Pure Gum, Mpa | 3 | 10 | 7 | 13 | 14 | - | 3 | 21 | 14 | 21 |
| Reinforced, Mpa | 21 | 14 | 14 | 24 | 14 | 10 | 12 | 21 | 19 | 21 |

Resilience

| | | | | | | | | | | |
|------------|----|----|---|---|----|----|----|----|---|---|
| Room Temp. | Çi | K | i | i | K | i | K | Çi | i | M |
| Hot | Çi | Çi | i | i | Çi | Çi | Çi | Çi | i | M |

Resistance to

| | | | | | | | | | | |
|-----------------|----|----|-----|----|----|----|-----|-----|---|---|
| Tear | i | i | v | v | v | Z | Z | i | v | M |
| Abrasion | i | i | i | i | i | Z | V-Z | M | M | M |
| Compression Set | Çi | v | i | i | Çi | Çi | Çi | v-i | v | i |
| Weathering | M | Çi | v-i | Çi | M | M | M | M | M | M |
| Oxidation | M | M | i | M | O | M | M | Çi | M | i |
| Ozone | M | i | Z | Çi | O | M | M | Çi | O | Z |

Temperature Range

| | | | | | | | | | | |
|------------------|---|---|----|----|-----|---|---|---|----|---|
| High Temperature | M | i | Çi | Çi | O | O | M | i | Çi | i |
| Low Temperature | M | i | i | i | Z-i | O | Z | i | v | M |

Aqueous Fluid Resistance

| | | | | | | | | | | |
|-------------|---|----|-----|---|----|----|-----|----|---|-----|
| Dilute Acid | M | M | i | i | M | M | V-Z | Çi | M | M |
| Conc. Acid | i | M | i | i | M | i | V-Z | i | M | v-i |
| Water | M | Çi | v-i | i | Çi | Çi | Z | i | i | Çi |

Organic Fluid Resistance

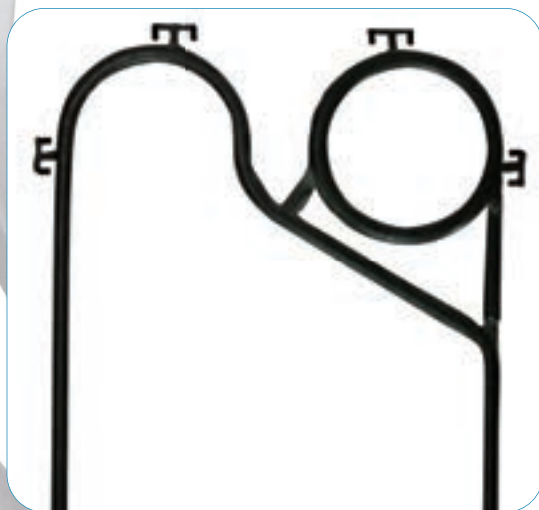
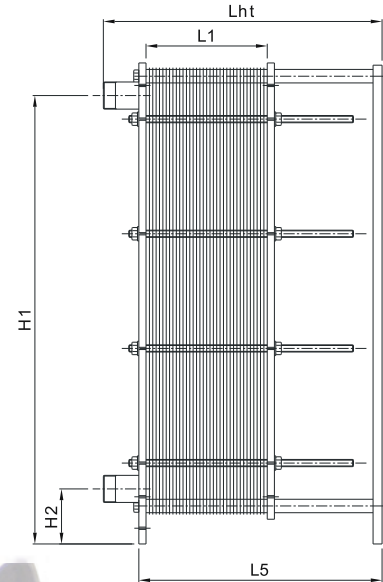
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|-----------------------|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|
| Aliphatic (A) | Z | Z | M | M | M | M | M | i | i | Z |
| Oxygenated (B) | i | i | Z | Z | Z-i | Z | Z | Z | Z | V |
| Chlorinated (C) | Z | Z | Z-V | Z-V | M | i | Z | Z-V | Z-V | Z |
| Aromatic (D) | Z | Z | i | i | M | M | V-Z | v | v-i | Z |
| Fuels (E) | Z | Z | M | M | M | M | Çi | i | i | Z-i |
| Fats and Oils (F) | v | Çi | M | M | M | M | Çi | i | i | Z-i |
| Permeability | V-Z | ÇK | K | K | K | v | K | K | K | v |
| Flame Resistance | P | Z | Z | Z | i | i | Z | i | v-i | Z |
| Dielectric Properties | M | i-M | Z | Z | i | i | V-Z | Çi | M | M |

| | | | | | | | | |
|-----------------------|---------------------------|--------------------------------------|---------------------------------------|-------------------------|-----------------------------|---------------------------------|--------|--------------|
| Key To Ratings | O: Outstanding | E: Excellent | VG: Very Good | G: Good | F: Fair | P: Poor | L: Low | VL: Very Low |
| Footnotes | A: hexane, isooctane etc. | B: acetone, methyl-ethyl ketone etc. | C: chloroform, perchlorethylene, etc. | D: toluene, xylene etc. | E: kerosene, gasoline, etc. | F: animal and vegetable product | | |

FREQUENTLY ASKED QUESTIONS

How do you calculate the maximum tightening for a PHE?

Each manufacturer has its own criteria. Do not exceed the limit indicated in the documentation of your machine. Some properties may change in case of addition or cancellation of plates. If you are not sure about it, contact us. Going over the pressure limit involves a high risk of irreversible damage to the set of plates. Jeotes™ has a wide product range for Plated Heat Exchangers. Jeotes™ is the only address that you can easily find solutions for all plate heat exchangers including the other brands.



Which material should be used for a specific application?

Gasket materials depends on pressure, temperature and kinds of fluids and characteristic of CIP system. Jeotes™ presents various elastomers. You can consult Jeotes™ about the subject and get technical assistance. We use advanced laboratory methods to advice best gasket quality to your process.

Jeotes™ produce both gaskets as well PHE's.

How often do the plate exchanger gaskets need to be replaced?

There is no fixed rule. Factors such as the quality of the gasket, temperature, product, type of plate, all have an influence. The important thing is not to damage the package of plates by excessive tightening and not to allow the gaskets to crystallize as they can distort the plate grooves. Otherwise, damaging the gasket holes will cost more than changing with new ones.

You can take maintenance, repairing, cleaning and assembling services from Jeotes™ in your workplace.



FREQUENTLY ASKED QUESTIONS

What are the advantages in buying my gaskets from Jeotes™ gaskets?

Principally you will find that you are dealing directly with the manufacturer of the exchanger gaskets, with the degree of specialization involved. Also you will find that the quality is better, as well as generally being more economical. Furthermore, you will get an optimum return on your investment and a demonstrably superior performance.



Why is preventive maintenance so important?

When you change the gaskets of the plate exchanger with the recommended frequency, you are ensuring a long life for your machine. If the gaskets become hardened, you run a high risk of irreversible damage to the set of plates. You will notice the high performance and greater durability for your machine with Jeotes™ plate heat exchanger gaskets.

Why is preventive maintenance so important?

Companies' having different paste mixtures themselves causes some differences like strength and duration properties between the gaskets even manufactured from the same material (NBR, EPDM etc.) Jeotes™ refers from well known standards, qualified gaskets used already and experiences from PHE applications. In accordance with that, performs a unique manufacturing with a continuous development in paste recipes.



How can I insert Jeotes gaskets into the plates?

Jeotes™ gaskets' assembling is same with the original ones. Companies revise their well-known models with various types of reasons and this makes the gaskets and plates to be inadaptable together. Jeotes™ surely follows these new models and supplies gaskets with a definite knowledge. Some companies' plate and gasket structure seems to be highly complicated (for example crossed flows) so gasket's or plate's point of touch can't be easily understood or model's asymmetric structure causes difficulties. Jeotes™ has an excellent experience with its wide product range and it serves a complete support about installation.

