



MPF - MEDICAL POLYMER FOAM™ BY **MOLTOPLAST**

EXTRACT FROM THE TECHNICAL DOCUMENTATION

DEFINITION

MEDICAL POLYMER FOAM- are special foams exclusively developed and used for medical products. They are categorized into two classes: Medical products of class II and medical products of class I.

FIELD OF APPLICATION

MEDICAL POLYMER FOAM- from Moltoplast in the medical products class II are special foams, which are used: For wound treatment, post surgically, decubitus, ulcus cruris, burns etc.

MEDICAL POLYMER FOAM- from Moltoplast in the medical products class I are special foams, which are used for nursing and hospital mattresses, therapy and positioning aids, as well as in decubitus prophylaxis, protection prophylaxis and fall prophylaxis.

PREPARATION

MEDICAL POLYMER FOAM- is prepared in a one-shot procedure through a chemical reaction of liquid polyisocyanates, polyols and water. The reactants are added and the reaction mixture is processed continuously through a low pressure stirrer mixture. Monomers, free TDI or formaldehydes are not used. The safety of the chemical, biological and toxic properties is tested by a bio compatibility check in accordance with GLP standards. The in vitro cytotoxicity test proved that no potential cytotoxic substances are released. The intradermal reactivity test (test for skin irritations) proved that polar, as well as non polar extracts caused no irritations.

from Moltoplast is produced under strictly controlled and monitored conditions in order to meet the high medical requirements concerning physical, toxicological, hygienic and bio compatible properties. This guarantees the QM certification for medical products in accordance with ISO 13485, as well as constant monitoring of external sites (mdc - medical device certification GmbH). MEDICAL POLYMER FOAM- is CE – labeled.

PROPERTIES

MEDICAL POLYMER FOAM- from Moltoplast serves as infection prevention and denies breeding ground to pathogenic organisms such as bacteria, fungi, dust mites or algae.

MEDICAL POLYMER FOAM- from Moltoplast has the advantage that the fluid handling is regulated via its intrinsic resorption characteristics (absorbing liquids), the retention (retention of absorbed substances) and the evaporation capacity (average evaporation rate).

MEDICAL POLYMER FOAM- from Moltoplast distinguishes itself by harmonious cell structure (from weakly branched to fully networked open cells) which is especially adapted for the respective area of application. The mark of quality of the MEDICAL POLYMER FOAM- does is not defined by the density and hardness, as well as various other standardized measurement parameters, as is the case with customary foam substances in the non-medical industry (commercial, construction, upholsterer foam substances), but rather by respective medical purposes.

Example: Nursing and Therapy Mattresses

MEDICAL POLYMER FOAM- is made especially for various patient weight classes and in connection with an existing or expected decubitus. There are different system mattresses for patients whose weight range from 55 kg, 125 kg, 180 kg, 250 kg, to 400 kg. Each case takes into account an expected decubitus or an existing decubitus of degree I-IV.

With bonding of various MPFs together only the cell walls are connected to each other, in order to completely preserve the desired qualities of air permeability, shear force dispersion etc.

No relevant density or hardness of the mattress core can be given due to the special system construction of nursing and therapy mattresses, which have 2D and 3D forms, perforations, bonding, etc., which may vary.

Example: Therapy and Positioning Aids

MEDICAL POLYMER FOAM- is defined by the various characteristics of pressure and bulk flexibility.

Example: Protection and Fall Systems

MEDICAL POLYMER FOAM- is defined by its various energy absorption characteristics.

Example: Wound Treatment

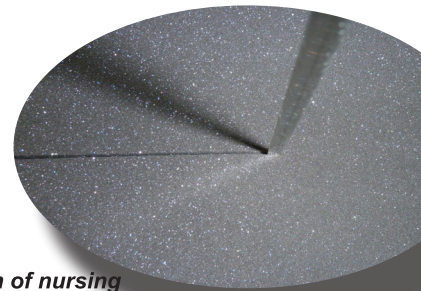
MEDICAL POLYMER FOAM- is defined by the various characteristics of preserving a favorable microclimate for cell migration, cell proliferation, and cell differentiation, as well as neovascularization, wound cleaning effectiveness, protection against infection, etc.



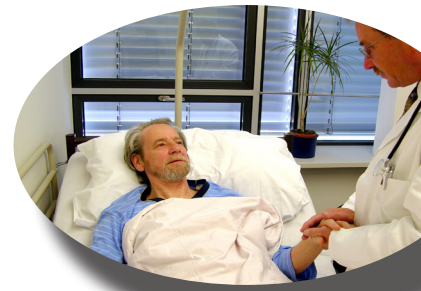
One-shot procedure



continuous laboratory testing



particle free cutting



satisfied users

