

**UNITECH**Isam Kabbani Group of Companies
www.unitech-ikk.com | www.unipro-ikk.com**SEALANTS, ADHESIVES & CHEMICALS**

ONE-PART POLYURETHANE SEALANTS

**POLY TI****POLY TI****DESCRIPTION**

Poly TI is a high performance one part Polyurethane sealant weather-resistant, non-sagging, and water tight with excellent adhesion properties designed for use in all types of joints, vertically and horizontally. Poly TI has a movement capability of $\pm 25\%$ of the joint width, making it ideal for joints.

USE

Single component, elastomer polyurethane sealant for expansion joints.

APPLICATIONS

- Expansion joints in heavy and light prefabrication and traditional masonry.
- Sealing joints for facade panels, curtain walls, boarding, exterior wood finishing.
- Joints between frame and preframe, between door frame and masonry.
- Adheres on a majority of building supports: concrete, glass, anodized aluminium, wood...

**TEST REPORT**

- by the laboratories POURQUERY: Permeability to vapour.

TYPICAL PROPERTIES

Composition	1-part polyurethane, moisture curing
Consistency	Smooth and pasty
Skin formation	~ 60 minutes (+23°C / 50% r.h.)
Curing rate	2-3 mm/24 hours (+23°C / 50% r.h.)
Movement Capability	25%
Specific Gravity	1.23 - 1.25
Sag flow	0 mm, very good
Service temperature	-40°C to +70°C
Tensile strength	>200 psi
Tear strength	~ 6 N/mm (+23°C / 50% r.h.)
Shore A Hardness	~ 30 after 28 days (+23°C / 50% r.h.)
E- Modulus	~ 0.4 N/mm ² at 100% elongation (+23°C / 50% r.h.)
Elongation at break	> 500% (+23°C / 50% r.h.)
Elastic recovery	> 70% (+23°C / 50% r.h.)
VOC	~ 36 gpl

Chemical resistance (as an indication): to water, cleaning agents, accidental spills of oils and hydrocarbons, accidental spills of acids and diluted bases. Because of the sensitivity of polyurethanes to UV, clear colours may change over time. This modification is only aesthetic and it does not affect the mechanical properties of the cured product.

STANDARD CONDITIONING OF THE PRODUCT**PACKAGING:**

- sausage 600 ml
- 12 sausages per box

STANDARD COLOURS:

- white
- grey
- beige

CONSUMPTION:

joint width must be designed to suit the movement capability of the sealant. A width to depth ratio of ~ 2: 1 need to be maintained.



INSTRUCTION FOR USE

SURFACE PREPARATION:

All joints need to be absolutely clean. For concrete, sand blasting is recommended. All curing compounds, caulks, grease, water proofing compounds etc. need to be removed. For non porous surfaces such as glass, metal etc. cleaning with M.E.K or Toluene is recommended. Polyethylene rod or polyurethane foam is recommended as a joint filler and back up material. Fillers treated with bituminous products, grease or oil should not be used. Where present they need to be removed or separated by vinyl tape or polyethylene film.

A preliminary test is necessary on siliconized tiles. It is up to the users to check the compatibility with the surface in terms of adherence, chemical compatibility and staining (make a pre-test if required).

Size correctly the joint according to the predictable movements and to the capacity of movement.

The width of the joint shall be included between 6 and 40 mm. For the width of joint lower or equal to 10 mm, the depth of the joint shall be equal to its width. For the widths of joints superior to 10mm the depth of the joint shall be equal in the middle of its width.

APPLICATION:

- If necessary, apply in a thin layer the polyurethane primer. We recommend to use the primer on supports mortars or likened to which the aspect of surface gets closer some mortar (surface ribband and absence of roughness).
- After the primer is cured, press a flexible backfilling rod that will not adhere to the sealant. The bottom of joint should not show notches likely to cause bubbling. Protect the edges of the joint by adhesive tape for a better finishing.
- Apply the sealant in one layer for joints of small width, in three layers for joints of large width, the two first onto the edges of the joint and the third onto the bottom. Smooth with water free of additives. Press the sealant correctly against the edges and the bottom of the joint while avoiding the air bubbles inclusion. Remove the masking ribbons.
- Cleaning of the material with the White Spirit before drying. The cured sealant come out by scratching.
- Can be later painted after full curing. Use rather paintings in dispersal (acrylic, vinyl) and realize a preliminary test. The movement of the joint can entail the crack of the painting.

Standard design dimensions for concrete elements as per DIN 18 540 /table 3:

Joint distance	2 m	2-3.5 m	3.5-5 m	5-6.5 m	6.5-8 m
Design joint width	15 mm	20 mm	25 mm	30 mm	35 mm
Min. joint width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint depth	8 mm	10 mm	12 mm	15 mm	15 mm

Minimum joint width for perimeter joints around windows: 10 mm

All joints need to be properly designed and dimensioned by the main contractor in accordance with the relevant standards, because changes are not usually feasible after construction. The basis for calculation of the necessary joint width is the technical values of the joint sealant and the adjacent building materials, plus the exposure of the building, its method of construction and its dimensions

APPROXIMATE CONSUMPTION

Joint width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint depth	8 mm	8 mm	10 mm	12 mm	15 mm
Joint length / 600 ml	~ 7.5 m	~ 4.5 m	~ 2.5 m	~ 1.6 m	~ 1.3 m

STORAGE CONDITIONS

- 9 months from production date, in original unopened packaging and protected from humidity.
- Store in a well ventilated room and at temperature between 10-25°C.

RECOMMENDATIONS:

Our technical advices on the use of the product are expressed either orally, in writing or by means of tests.

They are given to the best of our knowledge. They constitute simple indications which do not engage our responsibility. These values are given as an indication only and they cannot, in any case, be regarded as specifications.

Insofar as it is not possible for us to control the use of the product and taking into account the diversity of materials and the possible uses, the users will have to carry out the tests necessary to determine if the product is suited for the specific use for which it is intended.

It is up to the users to respect local legislation and to obtain the homologations and authorizations that are eventually required.

LOCATIONS

KIGDOM OF SAUDI ARABIA

unitech.ksa@ikkgroup.com

Jeddah

Tel : +966 12 627 8222
Fax: +966 12 627 8722

Jeddah - Ghurab Showroom

Tel : +966 12 667 2000
Fax: +966 12 661 4306

Mak kah/Taif

Tel : +966 12 541 1206
Fax: +966 12 532 1675

Mad inah

Tel : +966 14 842 1095
Fax: +966 14 842 1090

Yanbu

Tel : +966 14 390 1499
Fax: +966 14 322 7101

Khamis Mushayt

Tel : +966 17 237 5929
Fax: +966 17 237 8783

Najran

Tel : +966 17 546 3873
Fax : +966 17 546 3873

Al Baha

Tel : +966 17 237 5929
Fax: +966 17 237 8783

Sharorah

Tel : +966 17 532 8153
Fax: +966 17 532 8153

Gizan

Tel : +966 17 321 6660
Fax: +966 17 321 0665

Riyadh North

Tel : +966 11 415 5465
Fax: +966 11 456 6627

Riyadh South

Tel : +966 11 448 0112
Fax: +966 11 447 7421

Riyadh West

Tel : +966 11 431 6271
Fax: +966 11 431 7642

Riyadh East

Tel : +966 11 448 0112
Fax: +966 11 447 7421

Qassim / Buraidah

Tel : +966 16 382 3946
Fax: +966 16 385 2186

Hail

Tel : +966 16 543 3931
Fax: +966 16 543 3935

Skakah / Qurayyat

Tel : +966 14 626 3904
Fax: +966 14 626 3905

Tabuk

Tel : +966 14 423 5203
Fax: +966 14 423 5203

Hafr el Batin

Tel : +966 13 729 3644
Fax: +966 13 729 3644

Dammam

Tel : +966 13 859 0097
Fax: +966 13 857 8177

Jubail

Tel : +966 13 361 4390
Fax: +966 13 362 4499

Hofuf

Tel : +966 13 530 1474
Fax: +966 13 530 7144

FACTORIES

SFSP - KSA

sfsp.jeddah@ikkgroup.com

Specialized Factory for Steel Products

3rd Industrial City / Jeddah

Tel: +966 12 637 4482
Fax: +966 12 636 1963

SFSP / UAE

sfsp.uae@ikkgroup.com

SIGMA Factory for Steel Products

DIC (Dubai Industrial City)

Tel : +971 4 818 1919

SFSP / Egypt

sfsp.cairo@ikkgroup.com

Specialized Factory for Steel Products

6th of October City Giza

Tel : +20 2 3820 6477
Fax: +20 2 3820 6036

SFSP / Lebanon

sfsp.lebanon@ikkgroup.com

Specialized Factory for Steel Products

Tanayel, Bekaa

Tel: +961 8 514 290
Fax: +961 8 514 291

BAHRAIN

unitech.bahrain@ikkgroup.com

Manama

Tel : +973 17 874 897
Fax: +973 17 789 470

KUWAIT

unitech.kuwait@ikkgroup.com

Kuwait City

Tel : +965 2 4924 937
Fax: +965 2 4924 938

UNITED ARAB EMIRATES

unitech.uae@ikkgroup.com

Dubai - Al Rashidiyah

Tel : +971 4 2591 773
Fax : +971 4 2591 774

Abu Dhabi - Musaffah

Tel: +971 2 552 3393
Fax: +971 2 552 5499

OMAN

unitech.oman@ikkgroup.com

Muscat

Tel : +968 24 591 006
Fax : +968 24 597 006

JORDAN

unitech.jordan@ikkgroup.com

Amman

Tel : +962 6 556 3030
Fax: +962 6 554 7911

Aqaba

Tel : +962 6 556 3030
Fax: +962 6 554 7911

PAKISTAN

unitech.pakistan@ikkgroup.com

Karachi - Clifton

Tel-Fax : +92 21 35826120

EGYPT

unitech.egypt@ikkgroup.com

Cairo 6th of October City

Tel : +20 2 3820 6477
Fax: +20 2 3820 6036

LEBANON

unitech.lebanon@ikkgroup.com

Beirut

Tel : +961 1 858 277
Fax: +961 1 858 276

ENGINEERING, DESIGN, MARKETING & MULTIMEDIA

Unitech Deutschland GmbH

Germany

unitech.germany@ikkgroup.com

Stuttgart

Tel : +49 711 6868 7222
Fax: +49 711 6868 7223

Multi-D s.a.r.l

Lebanon

multi-d@ikkgroup.com

Multi-d Beirut

Tel : +961 1 841 155
Fax: +961 1 841 156

R&D DEPARTMENT

Saih Suhaib-3, Opp DEWA Substation, Dubai Industrial City, Dubai, UAE

Tel : +971 4 818 1944 - Mob: +971 55 517 0841

Email: unitech.uae@ikkgroup.com - abed.demachkieh@ikkgroup.com