

# POLO-KAL 3S

HIGHLY NOISE-INSULATED HOUSEHOLD DISCHARGE PROGRAMME

## INNOVATIVE 3-LAYER TECHNOLOGY

# POLO-KAL NG

NOISE-INSULATED HOUSEHOLD DISCHARGE PROGRAMME

**1 ) EXTERNAL LAYER MADE OF PP-C.** This stiff and extremely impact-resistant layer forms the protective outer skin of the pipe. It ensures high stability, robustness and outstanding weathering resistance, and reinforces the noise insulating effect. The smooth surface is coloured in the characteristic white of POLO-KAL 3S.

**2 ) INTERMEDIATE LAYER MADE OF POROLEN.** The unique visco-elastic POROLEN material used for the intermediate layer is the key factor behind the superlative noise insulation values of POLO-KAL 3S. It dampens knocks and vibrations and absorbs air- and structure-borne sound waves, thereby reducing drainage noises.

**3 ) INTERNAL LAYER MADE OF PP.** This smooth internal layer also contributes to POLO-KAL 3S's noise-insulating effect. It prevents incrustation and corrosion inside the pipe, and also scores for its high resistance to hot water (up to 95°C), chemicals and mechanical abrasion.

**1 ) EXTERNAL LAYER MADE OF PP-C.** With its high impact strength, sturdiness and outstanding weather resistance, this outside protective layer is about as tough as they get. The surface is smooth and comes in the unmistakable blue of the POLO-KAL NG piping systems.

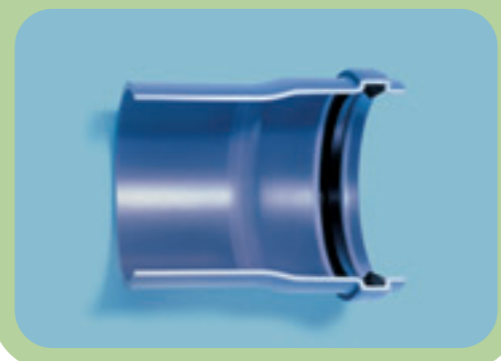
**2 ) INTERMEDIATE LAYER MADE OF PP-MV.** The mineral reinforcement of the intermediate layer plays a key role in giving POLO-KAL NG its excellent sound absorbency. This carrier layer also gives the pipes very great stiffness, which in turn makes them very stable – and thus highly reliable.

**3 ) INTERNAL LAYER MADE OF PP-C.** High resistance to hot water, chemicals and mechanical abrasion. It also resists to incrustation and reduces drainage noise thanks to the smooth inside surfaces. These are the distinguishing features of the blue material of the internal layer.

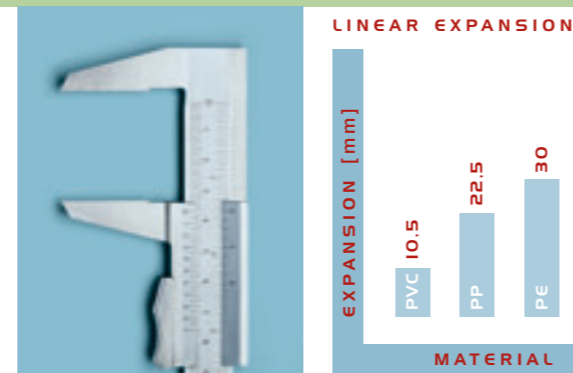
**HIGHLY NOISE-INSULATED**

**NOISE-INSULATED**

## PRECISION AND ACCURACY

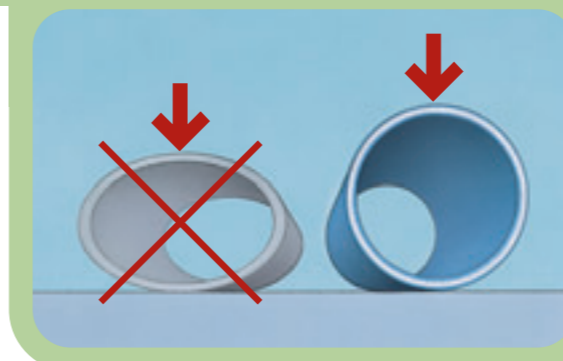


**PRECISION SEALING SYSTEM** (NO "LEAKAGE" OF TIME OR MONEY, EITHER) The exactly shaped socket ensures that the push-fit connection really does fit, with great precision, and prevents the inlaid lip seal being displaced. A watertight connection is guaranteed, meaning that no time- and cost-intensive repairs will be needed.

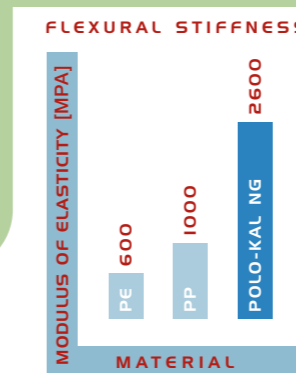


**LOW LINEAR EXPANSION** (COMPARISON – THE BEST WAY TO MAKE SURE) The low linear expansion ensures that the pipes will fit exactly when laid, and prevents them buckling. This makes for easy installation and dependable operation for years to come.

Technical plastics literature; test of POLO-KAL NG, n° 47.420, OFI, May 2002

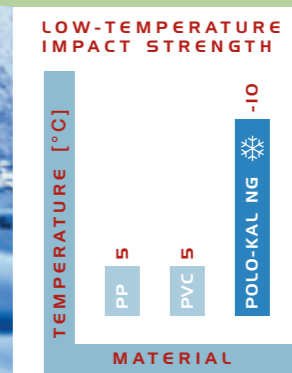


**HIGH PIPE STIFFNESS AND DIMENSIONAL STABILITY** (QUALITY FROM WHICH NOTHING WILL DEFLECT) The pipes' high axial and ring rigidity not only makes them easier to install but also prevents any deflection of pipes mounted in the horizontal.

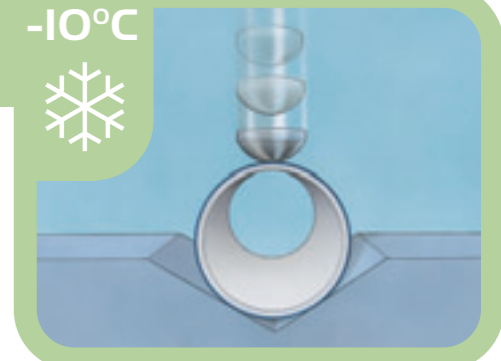


Technical plastics literature; test of POLO-KAL NG to ISO 178

## LOW-TEMPERATURE IMPACT STRENGTH



Test of POLO-KAL NG, n° VA KU 20080/1, TGM, February 2004



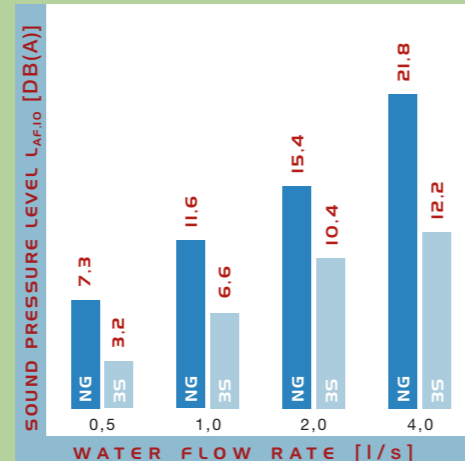
**HIGH IMPACT STRENGTH. EVEN AT LOW TEMPERATURES** (THEY CAN STILL TAKE THE KNOCKS WHEN THE MERCURY DROPS) These properties of the pipes mean that you can carry on laying them even when temperatures get really low.



( STILL-LIFE ) THE POLO-KAL NG AND POLO-KAL 3S NOISE-INSULATED HOUSEHOLD DISCHARGE PROGRAMMES, WITH INNOVATIVE 3-LAYER TECHNOLOGY: QUALITY THAT SAYS IT ALL (IN A DISCREET WHISPER!) ABOUT PEACE & QUIET IN THE HOME.

PEACE AND QUIET YOU CAN FIGURE OUT. THE HIGH NOISE-INSULATION EFFECT IS BORNE OUT BY TEST RESULTS.

Sound-level measurements carried out by the Fraunhofer Institute for Building Physics in Stuttgart, Germany



## TIME-SAVING AND EFFICIENT



### EASY TO INSTALL. THANKS TO PUSH-FIT SOCKET SYSTEM

(COST-EFFECTIVE AND TIME-SAVING) The push-fit system, the exact shapes, the high rigidity and the factory-fitted inlaid seal; together make for a fast, exact and cost-effective installation.



### EASY TO INSTALL



33% LABOUR SAVING

Expert report "Labour/time comparison", Oct. 2001. Basis: Installing soil-wastewater piping in a three-storey apartment building with mirror-symmetrical residential units – in the kitchen, bathroom and WC of each unit.

PRESENTED BY

PLEASE READ AND FOLLOW OUR TECHNICAL PRODUCT INFORMATION LITERATURE.

### POLO-KAL NG. WITH QUALITY LIKE THIS, YOU'LL BE COMING BACK FOR MORE!

- \_ POLO-KAL NG – USED IN CENTRAL DUST EXTRACTION SYSTEMS
- \_ POLO-KAL NG – USED IN CONTROLLED HOME VENTILATION SYSTEMS
- \_ POLO-KAL NG – USED IN GROUND HEAT EXCHANGER SYSTEMS
- \_ POLO-CLIP HS – THE HIGHLY NOISE-INSULATED PIPE FASTENING SYSTEM

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