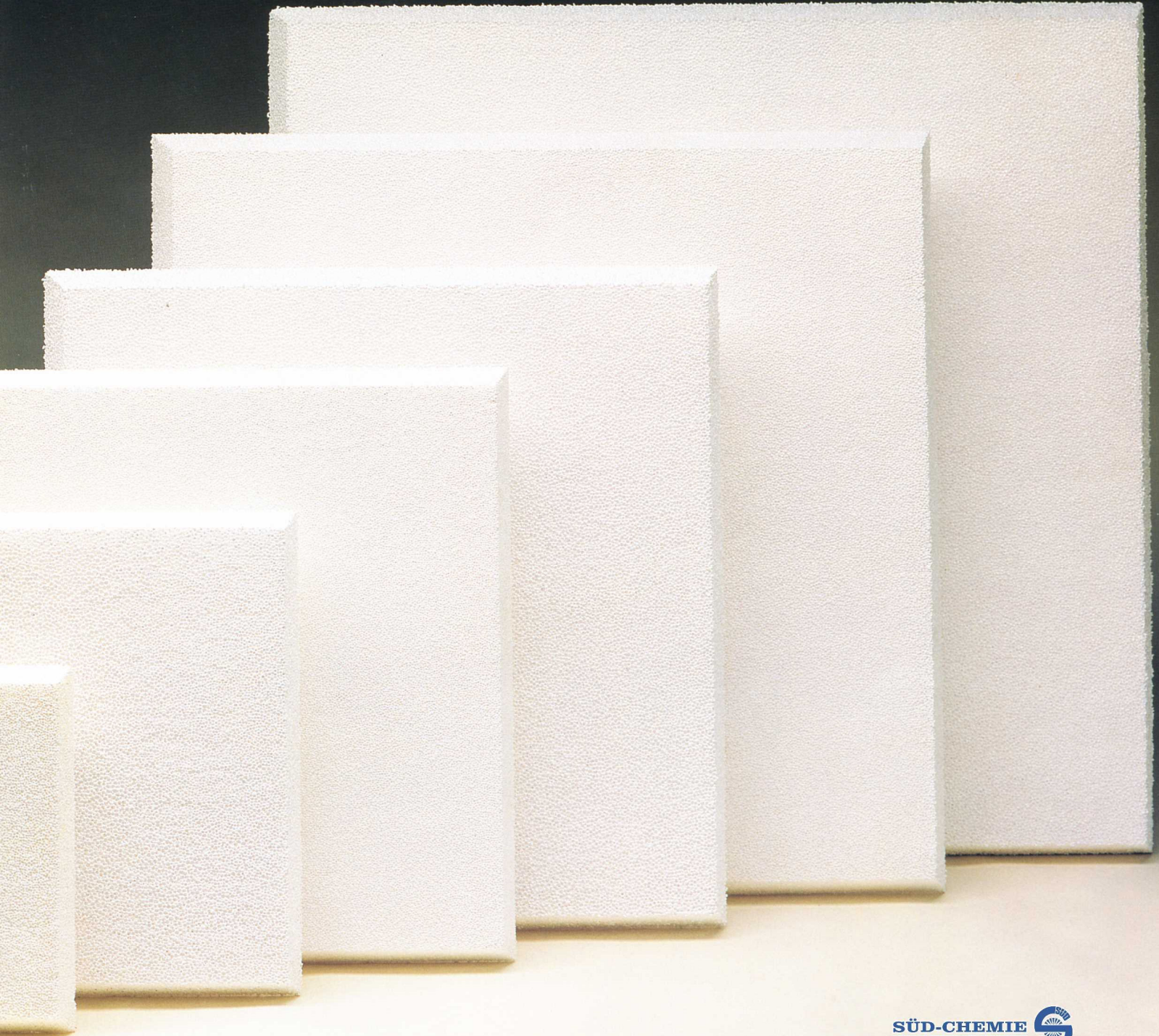


ALUCEL™

FULLY SINTERED "SELF-BONDED" CERAMIC FILTERS FOR NON-FERROUS ALLOYS

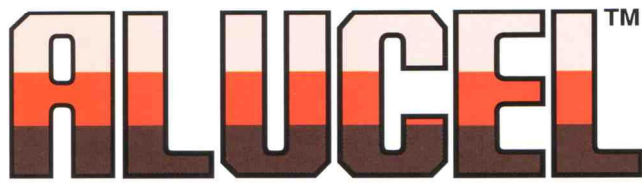


SÜD-CHEMIE
CREATING PERFORMANCE TECHNOLOGY



Hi-Tech Ceramics

HI-TECH CERAMICS INTRODUCES...



The next generation of high performance advanced ceramic filters

ALUCEL™ is manufactured from high purity aluminum oxides and is available in many shapes and pore sizes. ALUCEL™ is a highly porous, open-cell, sintered ceramic material which offers: tortuous paths with high permeability to fluids, low density, low heat capacity, good thermal shock resistance, and superior strength properties. ALUCEL™ offers the non-ferrous metal melter an excellent media for filtering many low temperature alloys such as aluminum, bronze, copper, zinc, etc. as well as precious metals such as silver and gold. ALUCEL's high purity aluminas are ideally suited for filtering difficult alloys such as those high in Lithium or Magnesium.

ALUCEL™ has advantageous characteristics which are unique to Hi-Tech's proprietary processing techniques. Unlike its phosphate-bonded counterparts, ALUCEL™ is self bonded through solid state sintering. This makes ALUCEL™ innately stronger and more chemically and thermally stable.

ALUCEL™ ceramic filters were developed with the same high quality, integrity and rigid standards that the aerospace industry demands from our UDICELL® high temperature, super-alloy filter media. Quality engineering, quality assurance, and lot-to-lot uniformity must be guaranteed filter after filter.

Hi-Tech Ceramics is the leading supplier worldwide of advanced ceramic filters for high temperature alloys. Our products are used extensively for the filtering of large volume master melts, aerospace components and other critical castings. For these applications our filters must meet stringent specifications to ensure mechanical integrity, thermal mechanical integrity, chemical and dimensional stability, uniform permeability and proper flow characteristics. As a result of these stringent standards, Hi-Tech Ceramics has developed the highest quality filters available in today's market.

This quality is not limited to the high temperature applications. Instead we've integrated those same strict standards and specifications into the development of our line of ceramic filters for non-ferrous filtration...ALUCEL.™

PHYSICAL AND MECHANICAL PROPERTIES OF 92% Al₂O₃

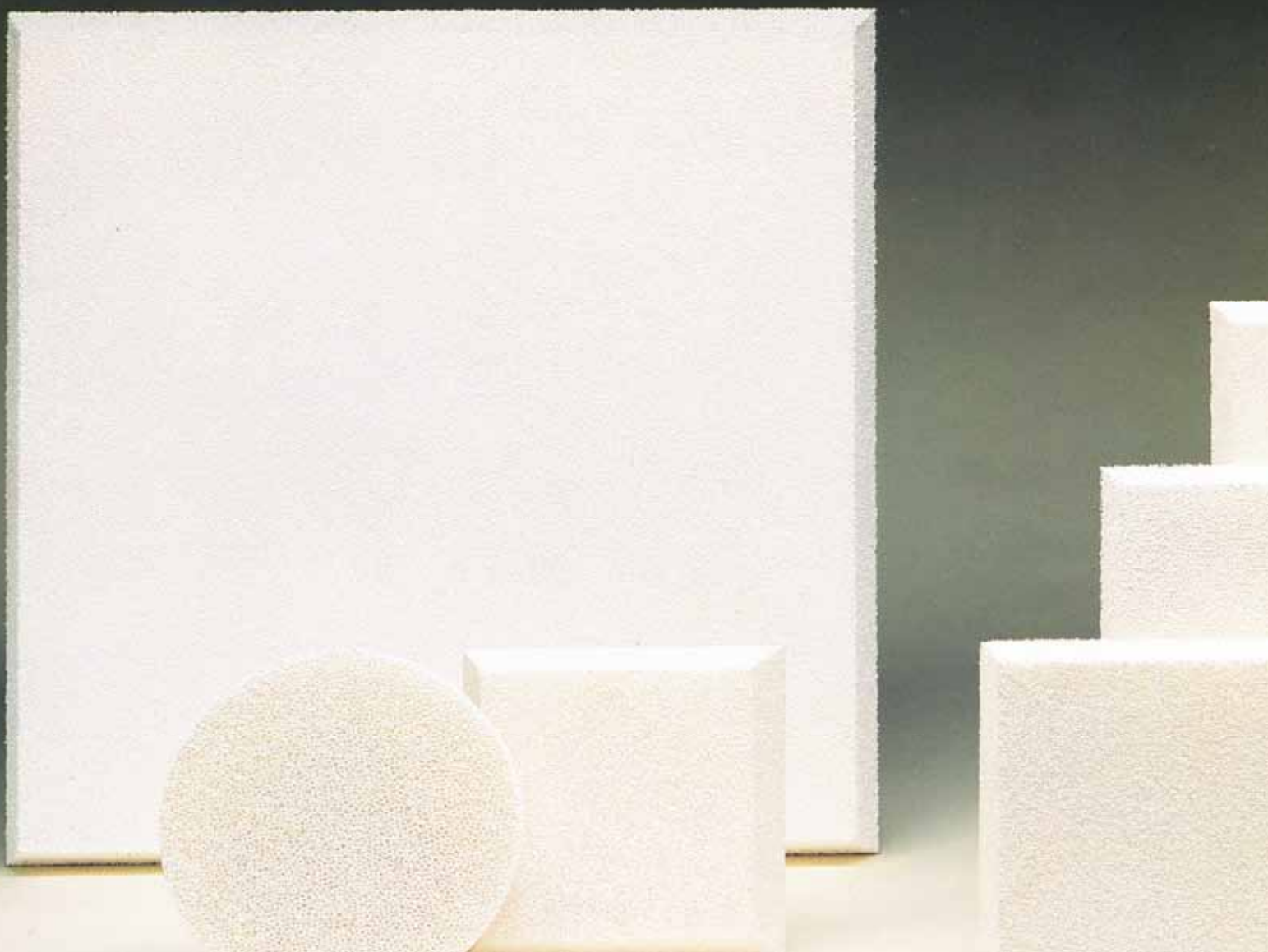
PPI	Ave. Pore Dia. μm	Unit Porosity %	Unit Density (g/cc)	Modules of Rupture (psi)	Compressive Strength (psi)
20A	1041	85	0.61	163	392
30A	829	85	0.60	185	369
40A	727	85	0.59	251	221
50A	420	85	0.60	276	196

PPI: Pores per linear inch
MOR: 3 point bend test

ALUCEL™ is a trademark of



ALUCEL™ is produced in standard sizes and can also be designed and manufactured to your specific dimensions, chemistry and permeability requirements. Determining the correct physical and mechanical properties which will yield the optimum results for your application is critical. Hi-Tech Ceramics' experienced application engineers are supported by extensive material characterization capability coupled with years of field experience. Close interaction with our customers maximizes the potential for a successful filter program.



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