

# THE HARD FACTS

**THE FLOOR:** The most neglected part of any building, workshop or exterior



*"An armoured floor to protect against attack!"*

*"It's unwise to pay too much, but it's worse to pay too little. When you pay too much, you lose a little money — that is all.*












*When you pay too little, you sometimes lose everything, because what you bought was incapable of doing what it was bought to do.*

*The common law of business balance prohibits paying a little and getting a lot — it can't be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you have enough, to pay for something better."*

JOHN RUSKIN (1819 - 1900)

# The right floor for the tougher job

A guide chart published by UNION TILES

TYPES OF INDUSTRY NYWERHEID Tipes	MAJOR PROBLEMS VERNAAMSTE PROBLEME										
	 Abrasion Afkuring	 Impact Slag/Skok	 Point Loading Spitsbelading	 Heat Hitte	 Heat Shock Hitteskok	 Freeze/Thaw Vries/dooi	 Low Temp. Lae Temp.	 Acids Sure	 Alkalis Alkalië	 Other Chemicals Ander Chemikalieë	 Oils/Fats Olies/Vette
Abattoirs Abattoirs						▲		▲	▲	▲	▲
Bakeries Bakkerie	▲		▲	▲					▲	▲	
Breweries Brouerie		▲	▲					▲	▲		
Coke Wharves Kookskaaie	▲	▲		▲	▲			▲	▲		
Confectionery Fynbakkerie			▲					▲	▲		
Dairies Suiwelproduksie		▲	▲		▲			▲	▲	▲	▲
Dyeing Kleuringproses			▲					▲	▲	▲	▲
Farms Boerderie	▲							▲	▲		
Fertiliser Plant Kunsmisaanleg			▲					▲	▲		
Fish Processing Visverwerking					▲	▲	▲	▲	▲	▲	▲
Food Processing Voedselverwerking					▲	▲	▲	▲	▲	▲	▲
Foundries Gieterye	▲	▲		▲	▲						
Fruit Processing Vrugteverwerking					▲	▲	▲		▲		
Iron Making & Casting Ystervervaardiging en Gietwerk	▲	▲		▲	▲						
Laundries Wasserye			▲					▲	▲		
Liquid Air Vloeibare Lug					▲	▲					
Machine Room & Workshops/Masjienwerk- plaas en Werkswinkels	▲	▲	▲								▲
Meat Processing Vleisverwerking			▲		▲	▲	▲		▲	▲	
Metal Working Metaalwerk	▲	▲		▲	▲			▲			
Non-Ferrous Metal Prep. Nie-Ysterhoudende Metaalverwerking	▲	▲	▲	▲	▲						
Papermaking Papiervervaardiging			▲					▲	▲	▲	
Tanning Looierye			▲					▲	▲	▲	▲
Vegetable Processing Groenteverwerking			▲					▲	▲	▲	▲

RECOMMENDED TYPE OF EXTRA HEAVY DUTY PRE-CAST INDUSTRIAL FLOOR TILES OR ARMOURING AANBEVOLE EKSTRA SWAARDIENS NYWERHEIDSVLOERTEELS OF VLOERBEWAPENING						RECOMMENDED TYPE OF RE-INFORCEMENT AANBEVOLE VERSTERKING		
Full Bodied Alurok	Alurok Major	Alurok	Inda Ferro	Indarok	Terrazzo Tiles	Stainless Steel Fibres	Galvanised Wire Mesh	Synthetic Fibres
		○	○	○				
			○		○	●		●
		○	○	○			●	●
○	○					●	●	
		○		○	○			●
		○		○			●	●
		○	○	○				●
		○	○					●
○	○							
		○	○	○				
			○			●	●	
				○				●
		○	○	○	○	●	●	
○	○					●	●	●
		○	○	○				●
		○		○				●
		○		○				●

Suitable only for applications Ph less than 10 and greater than 5

Refer pH Specification

## IMPORTANT POINTS

1. This chart is meant as a guide in the selection of the appropriate type of extra heavy duty industrial floors. However, due to the wide variety of specific characteristics and problem areas encountered in different industries, different types of floors may be required in various areas in the same industrial plant.

We place our technical department at your disposal for assisting in the selection of the most appropriate type of floor.

### 2. ALUROK: CHEMICAL RESISTANCE

Not the solution to all kinds of chemical attack and cannot be recommended for work in the presence of acids with a Ph of less than 5,0 or in prolonged contact with alkaline solutions with a Ph greater than 10,0 (sodium and potassium). For floors continually exposed to caustic alkalis (sodium hydroxide) we recommend the use of Indarok.

### 3. RESISTANCE TO TEMPERATURE EXTREMES

Alurok can withstand the effect of temperature as low as  $-190^{\circ}\text{C}$  and as high at  $1100^{\circ}\text{C}$ , whereas ordinary Portland cement can withstand temperatures no lower than  $-20^{\circ}\text{C}$  and no higher than  $100^{\circ}\text{C}$ .

### 4. HIGH ABRASION RESISTANCE

Our extra heavy duty precast tiles have approximately three times more abrasion resistance than the normal concrete floor slab.

### 5. RE-INFORCEMENT

- a) **Galvanised Wire Weld Mesh:** Imparts the conventional benefits of two dimensional (single plane) structural re-inforcement, most notably — improves impact strength.
- b) **Synthetic (Polypropylene) Fibres:** a three dimensional re-inforcement which improves the:
  - tensile strength
  - impact resistance
  - shear strength
  - resistance to minor thermal cracks
  - resistance to shattering force
- c) **Stainless Steel Fibres:** A superior three dimensional re-inforcement which prevents micro cracks which develop under thermal and mechanical stress into visible cracks which cause the ultimate failure of floors.

Other benefits are:

- increased fracture toughness
- higher tensile, flexural, compressive and shear strengths
- improved resistance to damage from impact, vibration, thermal and mechanical shocks
- higher resistance to cracking and spalling
- the steel fibre acts as a crack arrestor



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