

LIST OF ABBREVIATIONS

AAPA	Australian Asphalt Pavement Association
AAPT	Association of Asphalt Paving Technologists
ABET	Adult Basic Education and Training
ACTLA	Acceptance Criteria for Thin Layer Asphalt
ACGIH	American College of Government Industrial Hygienists
AI	Asphalt Institute
AITB	Association of Industry Training Boards
APT	Accelerated Pavement Testing
ARI	Asphalt Reinforcement Interlayers
ARPG	Asphalt Rubber Producers Group
ARRB	Australian Road Research Board
ASANRA	Association of South African National Road Agencies
ASGISA	Accelerated and Shared Growth Initiative for South Africa
ASPASA	Aggregate and Sand Producers Association of South Africa
ASA	Agrément South Africa
AsAc	Asphalt Academy
ATC	Asphalt Testers Course
BAT	Best Available Technology
BBA	British Board of Agrément
BCA	The New Zealand Bitumen Contractors' Association
BCC	Black Contractors Council
BEE	Black Economic Empowerment
BCAWU	Building Construction and Allied Workers Union
BitSafe	Bitumen Safety Course
BMLC	Bituminous Materials Liaison Committee (absorbed into the RPF)
BMOS	Bituminous Materials on Site (course)
BOT	Build Operate Transfer
BPAF	Bitumen Price Adjustment Factor
BPI	Bitumen Price Index
BRD	Bulk Relative Density
BS	British Standards
CapCoR	Capacity Coordination for Roads
CAPSA	Conference on Asphalt Pavements for Southern Africa
CAWU	Construction and Allied Workers Union
CBA	Cost benefit analysis
CBP	Concrete Block Paving
C&CI	Cement and Concrete Institute
CEAC	Civil Engineering Advisory Council
CEF	Central Energy Fund
CEITS	Civil Engineering Industry Training Scheme
CEN	European Commission for Standardisation (English)
CETA	Construction Education and Training Authority
CIDB	Construction Industry Development Board
CIDB	Construction Industry Development Board
CMA	Cement Marketers' Association

CMM	Construction Material Manufacturers
CMTC	COTO Materials Testing Committee
CoC	Code of Conduct
COCOSA	Council for Construction in South Africa
CoD	Centre of Development
COLTO	Commission of Land Transport Officials
COSATU	Congress of South African Trade Unions
COSHEC	Centre for Occupational Safety and Health and Environmental Conservation
CoT	City of Tshwane
COTO	Committee of Transport Officials
CPEE	Centre for Pavement Engineering Education
CSIR	Council for Scientific and Industrial Research
DACST	Department of Arts, Culture, Science and Technology
DEAT	Department of Environmental Affairs and Tourism
DPLG	Department of Provincial and Local Government
DOL	Department of Labour
DOT	Department of Transport
DSD	Dangerous Substances Directive
DTI	Department of Trade and Industry
DWAF	Department of Water Affairs and Forestry
EAPA	European Asphalt Pavement Association
ECSA	Engineering Council of South Africa
EEA	Employment Equity Act
EHS	Environment, Health and Safety
EIA	Environmental Impact Assessment
EINECS	European Inventory of Existing Commercial Chemical Substances
EME	Enrobé à Module Élevé
EPWP	Expanded Public Works Programme
ERD	Effective Relative Density
ERTRAC	European Road Transport Research Advisory Council
ESAL	Equivalent standard axles
ETB	Education and Training Board
ETBs	Emulsion Treated Bases
ETQA	Education and Training Quality Assurers
E&EC	Eurasphalt & Eurobitume Congress
FET	Further Education and Training
FHWA	Federal Highway Administration
FIDIC	The International Federation of Consulting Engineers
FRD	Foundation for Research Development
FROM	Finance Rehabilitate Operate & Maintain
GFIP/S	Gauteng Freeway Improvement Project/Scheme
GPTRW	Gauteng Department of Public Transport Roads and Works
GSAAPA	Global Strategic Alliance of Asphalt Pavement Associations
GSB	Graduate School of Business

HAPAS	Highway Authorities Product Approval Scheme
HDM	Highway Design Model
HET	Higher Education and Training
HiMA	High Modulus Asphalt
HMA	Hot-Mix Asphalt
HMAC	High Modulus Asphalt Concrete
HSE	Health Safety and Environment
HSEQ	Health Safety Environment and Quality
HVS	Heavy Vehicle Simulator
IARC	International Agency for Research into Cancer
IBEF	International Bitumen Emulsion Federation
IAT	Institute of Asphalt Technology
ICAP	International Conference on Asphalt Pavements
IDP	Integrated Development Plans
IGHMA	Interim Guidelines for the design of Hot Mix Asphalt in SA
ILO	International Labour Organisation
IMESA	Institution of Municipal Engineers of Southern Africa
IMPS	Industry Market Performance Statement
IRI	International Rideability Index
IRF	International Road Federation
IRI	International Roughness Index
ISAP	International Society for Asphalt Pavements
ISO	International Standards Organisation
ITS	Indirect Tensile Strength
ITT	Institute for Transport Technology
JIPSA	Joint Initiative for Priority Skills Acquisition
JRCA	Japanese Road Contractors Association
JV	Joint Venture
LAMBS	Large Aggregate Mixes for Bases
LAP	Load Accreditation Programme
LCEP	Local Councillor Empowerment Programme
LTD	Low Temperature Ductility
LTPP	Long Term Pavement Performance
LUMS	Land Use Management Surveys
MIG	Municipal Infrastructure Grant
MMLS	Mini Mobile Loading Simulator
MOA	Memorandum of Agreement
MR	Modulus Resilience
MTC	Materials Testing Committee
MTEF	Medium Term Expenditure Framework
MTRD	Maximum Theoretical Relative Density
MSDS	Material Safety Data Sheet
NABCAT	National Association of Black Contractors and Traders
NACTU	National Council of Trade Unions

NAFCOC	National African Federation Chamber of Commerce
NAPA	National Asphalt Pavement Association (USA)
NCAT	National Center for Asphalt Technology
NDoT	National Department of Transport
NEDLAC	National Economic Development and Labour Council
NEPAD	New Economic Policy for Africa Development
NGO	Non-Government Organisation
NIOSH	National Institute for Occupational Safety and Health
NPASR	National Proficiency Assessment Service for Roads
NPO	Non-Profit Organisation
NQF	National Qualification Framework
NQS	National Qualification System
NRSC	National Road Safety Council
NSA	National Skills Authority
NSB	National Standards Body
NZBCA	New Zealand Bitumen Contractors Association
OGA	Open Graded Asphalt
OHS	Occupational Health and Safety Act
OVA	Opportunity Value Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PBO	Public Benefit Organisation
PDPDG	Public Driving Permit for Dangerous Goods
PIARC	Permanent International Association of Road Congresses
PFMA	Public Finances Management Act
PMS	Pavement Management Systems
PPE	Personal Protective Equipment
PPGS	Product Performance Guarantee Systems
PPP	Public Private Partnerships
PRAC	Pavement Research Advisory Committee
PSV	Polished Stone Value
QMS	Quality Management Systems
RAL	Roads Agency Limpopo
RA	Reclaimed Asphalt
RBA	The Refined Bitumen Association
RBAC	Road Base Asphalt Concrete
RECOB	Road Engineering Coordinating Body
RFA	Road Freight Association
RISFSA	Road Infrastructure Strategic Framework for South Africa
RIRAC	Road Infrastructure Research Advisory Council
RMC	Ready Mix Concrete
RPF	Road Pavements Forum
RPP	Recognition of prior learning
RTFOT	Rolling Thin Film Oven Test
SAACE	South African Association of Consulting Engineers
SABS	South African Bureau for Standards

SACOB	South African Chamber of Business
SADC	Southern African Development Community
SAFCEC	South African Federation of Civil Engineering Contractors
SAFCOG	South African Federated Chamber of Commerce
SAHMA	South African Hot Mix Asphalt (Design Code)
SAICE	South African Institute of Civil Engineers
SALGA	SA Local Government Association
SANAS	South African National Accreditation System
SANCU	South African National Consumer Union
SANRAL	South African National Roads Agency Limited
SANS	South African National Standards
SAPDM	South African Pavement Design Project
SAPEM	South African Pavement Engineering Materials
SAPIA	South African Petroleum Industry Association
SAQA	South African Qualifications Authority
SARF	South African Road Federation
SARMA	South African Ready Mix Manufacturers Association
SAWIC	South African Women In Construction
SAT	Society for Asphalt Technology
SDA	Skills Development Act
SERA	Southern Education and Research Alliance
SETA	Sector Education and Training Authority
SETO	Sector Education and Training Organisation (eg. CEITS)
SGB	Standards Generating Body
SHE	Safety, Health and Environment
SHERQ	Safety, Health, Environmental, Risk and Quality
SHRP	Strategic Highway Research Program
SIDAP	Sabita Infrastructure Development Assessment Project
SMA	Stone Mastic Asphalt
SSDAG	Sabita Skills Development Advisory Group
SSP	Sector Skills Plan
STB	State Tender Board
TEI	Tertiary Educational Institutions
TFC	Thin (Asphalt) Friction Courses
TG	Technical Guideline
THRIP	Technology Human Resources for Industry Programme
TLA	Thin Layer Asphalt
TMH	Technical Methods for Highways
TRH	Technical Recommendations for Highways
TRL	Transport Research Laboratory
TRIP	Technical Recommendations in Practice
TSR	Tensile Strength Ratio
URRUD	Urban Renewal and Rural Development
UTFC	Ultra Thin Friction Courses
UTHS	Ultra Thin High Strength
UTLA	Ultra Thin Layer Asphalt
UP	University of Pretoria
US	University of Stellenbosch

VCA	Voids in Coarse Aggregate
VFB	Voids Filled with Binder
VIM	Voids In the total Mix
VMA	Voids in the Mineral Aggregate
VOC	Vehicle Operating Costs
VPD	Vehicles Per Day
WAM	Warm Mix Asphalt
WCPA	Western Cape Provincial Government
WLSP	Wholesale List Selling Price
WOAP	World of Asphalt Pavements