



DABS

Oil Absorption Basic System

KEY FEATURES

- Compact design with small table footprint
- Fits standard mixing chambers, while safety cage allows for easy access to chamber for filling and cleaning
- Configurable rotor speed and oil debit rate
- Connects to standard PC via serial port RS232
- Supports several burette models
- Pt-100 sensor for monitoring chamber temperature
- Dimensions:
400 x 500 x 950 mm (W x D x H)
- Weight: 60 kg

STATE-OF-THE-ART OIL ABSORPTION DATA SYSTEM COMPLIANT TO ASTM D2414 OAN AND D3493 COAN FOR CARBON BLACK, ASTM D6854 FOR SILICA, AS WELL AS ISO 4656

DABS is an oil absorption system to determine structure of carbon black and silica, as well as oil absorption of other powder material, also known as DPB absorption, DBP number or DOP number.

The data treatment for recording of a full mixing curve was initially developed by HITEC Luxembourg and is since then constantly further extended to satisfy increasing performance requirements. The curve fitting by a polynomial of 3rd order was a result of this initial development and has been introduced as "procedure B" in ASTM D2414.

The overall instrument comprises a data acquisition terminal and the absorptometer system. The terminal can also be acquired separately to enhance classic absorptometers without data treatment capability.



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SYSTEM CHARACTERISTICS: OIL ABSORPTION BASIC SYSTEM - DABS

MEASURING CAPABILITIES

Carbon black OAN and COAN

Silica oil absorption

Oil absorption of multiple other powder material

Full recording of mixing torque vs. oil debit

Applies normalization to raw data, based on reference material and its target values (e.g. carbon black SRBs)

Torque up to 15 Nm (option for 20 Nm)

Variable motor speed

Variable burette rate

MAINTENANCE

Torque calibration

Burette debit control

ASTM procedures (e.g. chamber pre-polish)

MEASURING MODES

ASTM D2414	Standard Test Method for Carbon Black Oil Absorption Number (OAN)
ASTM D3493	Standard Test Method for Carbon Black - Compressed Oil Absorption Number (COAN) *

SAFETY & SECURITY

Safety cage around mixing chamber	Opens 180 degrees - easy filling of samples and comfortable cleaning at end of test
Certifications	CE marking SGS-USTC certified

DIMENSIONS & SUPPLY

Power supply	230/115 VAC, 50/60 Hz, 400 VA
Table model	40 x 50 x 95 cm (W x D x H)
Weight	60 kg

INTERFACES

Serial port (RS232) to standard PC serving as operator interface (software included with the instrument)

Pt-100 temperature sensor input

Burette control connector

SOFTWARE

Menu guided application

Environment	Microsoft Windows® 32/64 bit XP/W7/W8
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Features

Torque smoothing by polynomial fit in significant part of mixing curve

Calculates oil absorption as per fixed torque level and as per % level of maximum torque (70% being standard)

Full management of TLS and Normalization as per ASTM D2414:
separate data sets for hard and soft grades (tread and carcass)
separate data sets for COAN

Test sequence management allows for remote installation of control PC

Extended data treatment

Integrated electronic manual

Extended maintenance support

Extensive logging capabilities (all activities in log files)

Up to 4 testers per PC (IPHT and or DADS / DABS)

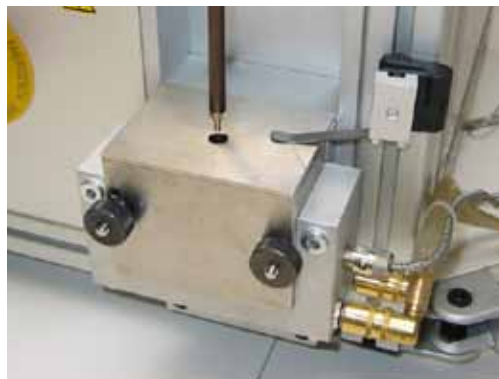
Multilingual (English, German, French)

Retrieve and visualization of previous data

Can be installed for retrieve only on any PC having access to the files

OPTIONS

Mixing Chamber Cooling Block	Maintain chamber at a stabilized temperature
Temperature Sensor	Monitor mixing bowl temperature
Extension Funnel	For testing of fluffy material



* Requires separate compression press

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