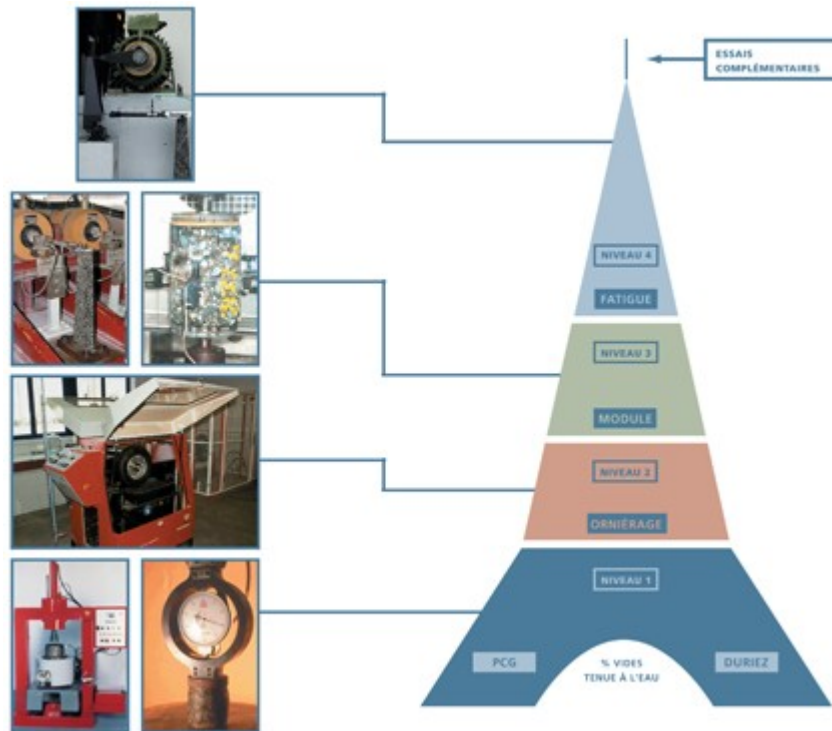


# The different stages of mix design



ESSAIS COMPLEMENTAIRES : ADDITIONAL TESTS

FATIGUE: FATIGUE

MODULE: MODULUS

ORNIERAGE: RUTTING

PCG: GYRATORY SHEAR TEST

DURIEZ: DURIEZ TEST

% VIDES: VOIDS CONTENT

TENUE A L'EAU: SENSITIVITY TO WATER

- FULL STUDY

- This begins with the selection and identification of all the potential constituents: aggregate, fines, binder and additives if needed.

- The designer then selects a "preliminary" mix design.

- The first stage of the evaluation of the mix is to investigate the compactability of the mix with a Gyratory shear compactor.

- The next stage is the evaluation of the sensitivity to water by means of the Duriez test.

- The mix's resistance to permanent deformation is then tested with the LPC rut testing machine. . The mix design is in principle settled after this stage.

- Structural design characteristics such as the stiffness modulus and the fatigue strength are then measured on the optimized mix design.

- VERIFICATION OF A KNOWN MIX DESIGN

Testing in this case is limited to the Gyrotory Shear Test and the Duriez Test on the nominal formula

*Photo: The different levels of testing in the bituminous mix design process (USIRF)*