

Type **Bounds** Lifetime Initialisation **Arithmetic Thread**

Swift

Static type system

Checked

Value semantics & Ref-counted

Enforced

Trap/explicit behaviour

Enforced actors & sendable

C++23 Static type system reinterpret_cast Asan Partially enforced/ Asan MSan/Asan UBsan Tsan

Circle

Static type system

Checked

Enforced borrow checker

Enforced

Checked/ defined

Enforced sync/send & BC

cpp2

Static type system

Checked

Partially enforced/checked

Enforced

Checked

Tsan

iso c++ Profile: Type* Profile: Ranges, Algorithms & Pointers Profile: RAII Profile: Initialisation Profile: Arithmetic Tsan

cpp2

Static type system

Checked

Partially enforced/ checked

Enforced

Checked

Tsan