According to a problem of Hirzebruch we look for models of biproducts of elliptic CM-curves with Picard modular structure. We introduce the singular mean value of crossing elliptic divisors on surfaces and determine its maximum for all abelian surfaces. For any maximal crossing elliptic divisor on an abelian surface A we construct infinite towers of coverings of A whose members, inclusively A, are contracted compactified ball quo- tients. On this way we find towers of Picard modular surfaces of the Gauss number field including $E \times E$ blown up at six points ($E \cong \mathbb{C}/\mathbb{Z}[i]$), the Kummer surface of the rational cuboid problem (3-dimensional extension of congruence number problem) and some interesting rational surfaces together with the corresponding congruence subgroups of $\mathbb{U}((2,1), \mathbb{Z}[i])$.