

**Values of standards and tests
Flat sheets for façades
SWISSPEARL®**

SWISSPEARL®

CH-8867 Niederurnen

CARAT®, REFLEX, NOBILIS, PLANEA, XPRESSIV

Cement composite without asbestos. Top finishing and core coloured through shade in shade. Partially coated with acrylic dispersion paint

Product data	Test Values from Third party institute		Test Values from Test Report No: 01-42233.01 (ATI) ICC-ESR-1248 Performance	
	EN Test. Nr.	Performance	ASTM Nr.	
Density	EN 12467 7.3.1	1.9 g/cm ³		
Weight for thickness 7-8 mm				
Thickness			C 120-90	0.310 inches
Tolerances on Dimensions <i>Cut panel Thickness</i> <i>Cut panel Length and Width</i> <i>Straightness of edges</i> <i>Squareness of edges</i>	EN 12467 7.2.3	± 0.1 mm ± 0.6 mm ≤ 2.0 mm/m ± 0.0 mm/m		
Modulus of rupture Crosswise dry	EN 12467	31 MPa	C 120-90	4,148 psi / 28.6 MPa
Lengthwise dry	EN 12467	21 MPa	C 1185-95	2,638 psi / 18.2 MPa
Average value (Equilibrium cross / length)	EN 12467	26 MPa	C 120-90	3,436 psi / 23.7 MPa (Grade IV)
Modulus of Elasticity dry (Mean crosswise/lengthwise)	EN 12467	16'000 MPa	C 120-90	2,676,000 psi 18'450 MPa
Bending Strength (charact. value 5 % Fractile)	EN 12467	25 MPa		
Surface Burning Characteristics (Flame spread/Smoke)	-	-	E 84-99	0/15 (0/< 5) Did not Ignite
Fire Classification	EN 13501-1	A2-s1,d0 non- inflammable	E 84-99	UBC Class I / NFPA Class A
Coefficient of Thermal Expansion (Average) (-30 °C to +30 °C)	-	10 · 10 ⁻⁶ K ⁻¹	E 228-95	6.97 · 10 ⁻⁶ in/in °F 1.25 · 10 ⁻⁵ mm/mm °C
Coefficient of Thermal Conductivity (K)	EMPA	0.56 W/m °K	C 518-98	7.5 Btu/h °F ft ²
Moisture Content (Mass-%) (Average)	-	5.0 M.-%	C 1185-95	5.12 M.-%
Water Absorption (Mass-%)	-	12 M.-%	C 1185-95	9.15 M.-%
Moisture Movement (50 % to 90 % RH)	-	-	C 1185-95	0.08 %
Water Tightness	EN 12467	24 hours	C 1185-95	No visible droplets or surface wetting
Frost Resistance (Flex. Strength) Swelling	EMPA	> 1000 cycles	C 1185-95	2,944 psi / 20.3 MPa
Warm Water Resistance (Average)	EN 12467	21 MPa	C 1185-95	2,860 psi / 19.7 MPa
Heat/Rain Exposure	EN 12467	50 cycles	C 1185-95	No damage or structural alterations visible
Resistance to acid rain	-	-	D 1308-87	No visible change
Resistance to UV (Xenon Arc Light acc. Weathering) Façade panels Exposure Duration: 2000 hours up to 3000 hours	-	-	G 155-00	Black Opal: ΔE = 1.33 Coral: ΔE = 0.58 Sapphire: ΔE = 1.11 Reflex Silver: ΔE = 0.25 Reflex Blue Ice: ΔE = 1.16 Reflex Sunset: ΔE = 0.69 Topaz: ΔE = 0.52 Reflex Autumn: ΔE = 0.79 Jade: ΔE = 0.50 Azurite: ΔE = 1.43 Amber: ΔE = 0.45 Reflex Champagne: ΔE = 1.26 Onyx: ΔE = 0.29
Resistance to UV (Xenon Arc Light acc. Weathering) Roofing panels Exposure Duration: 2500 hours up to 5000 hours			G 155-00	Black Opal 7020 R: ΔE = 2.13 (5000 h) Coral 7030 R: ΔE = 0.33 (5000 h) Red 1015 R: ΔE = 0.85 (2500 h) Black 6505 R: ΔE = 0.95 (2500 h) Ocean 4010 R: ΔE = 0.90 (2500 h)

SWISS **eface**® 