

For a sustainable, healthy and durable acoustic solution, which has excellent sound absorption and is in accordance with all fire regulations

>> Service

- Call our telephone hotline for custom advice on your situation.

pinta acoustic gmbh
Otto-Hahn-Straße 7
82216 Maisach, Germany
info +49 (0)8141.88 88-0
fax +49 (0)8141.88 88-555
www.pinta-acoustic.de



**Small effort, great acoustical impact –
The pinta BALANCE POLAR ceiling cloud**

Optimal room acoustics is indispensable for a pleasant working environment. The BALANCE POLAR ceiling cloud by pinta acoustic offers the perfect solution for rooms containing large paned areas and hard-walled surfaces. The custom system achieves its high impact on acoustics with small vertical suspension clearance and without excessively impairing the effectiveness of concrete-core cooling.

Introducing BALANCE POLAR, pinta employs a mono-material, recyclable acoustic element made from 100% polyester. The material is produced in an environmentally friendly process without chemical additives and it is toxically uncritical, eudermic and non-allergenic.



>> Choose from a range of alternatives:

- pinta FLOAT POLAR ceiling cloud
- pinta ARTWORK POLAR
- pinta LINEAR Absorber POLAR
- pinta PLANO POLAR
- pinta WHITELINE POLAR
- pinta PLUG & PLAY POLAR

Fire Protection Requirements

Certified with respect to fire according to EN ISO 13501: B-s1, d0 up to 20 mm and B-s2, d0 up to 40 mm.

This is to react to particular fire protection requirements in Europe which have been defined by the European Union by means of EN ISO 13501. Nevertheless, in European countries, varying national law applies such as the classification M1 in France. In order to satisfy requirements on the national and international level, pinta acoustic has developed an acoustical material which fulfills these requirements.

Classes acc. to EN13501-1	Germany	France	Italy Wall/Ceiling	Spain	UK
A1	–	–	A1	Incombustible	A1
A2	s1 d0	A2	M0	A2	residential
A2	s1 d1				
A2	s2 s3 d0 d1				
B	s1 s2 s3 d0 d1 d2	B1 Low flammability	M1	Class1 WallB-s2,d1 CeilB-s2,d0	Escape route B-s1,d0
C	s1 s2 s3 d0 d1 d2		M2	Class2 WallC-s2,d1 CeilC-s2,d0	Zone with people C-s2,d0
D	s1 s2 s3 d0 d1 d2	B2 Moderately flammable	M3 M4	Class3 WallD-s2,d1 CeilD-s2,d0	Class1
E	d2				
F		B3 Highly flammable	M4		

Sustainable – LEED and DGNB

The American LEED model, meaning “Leadership in Energy and Environmental Design”, is an internationally approved system of certifications. Since at least the 2000s, this system has been setting standards in development and planning of “Green Buildings” worldwide. This means high-performance buildings with respect to ecology.

By its standards, the system represents awareness, efficiency and healthy usage-related parameters – for commercially as well as privately used buildings. Concerning sustainable cost-efficiency, responsibility for the future, and ecology, the term “Green” has become a valuable part of the image of particularly forward-looking organizations.

The German Seal of Quality in Sustainable Construction (DGNB) is the first wholistic quality rating system with regard to aspects of sustainability in construction engineering. It offers a way of optimizing buildings, already during planning, by ecological, economical, functional and technical criteria.

Due to its clean material composition, pinta POLAR is a valuable contribution to realization of your building. pinta POLAR is free of formaldehyde, it is mono-material, it is free of chemical additives and it is 100 % recyclable.

Waste-free

Starting at manufacturing, pinta BALANCE POLAR ceiling clouds are environmentally friendly, i.e., they are manufactured most widely without producing any waste. Any aluminum and absorber sheet waste are collected, sorted, and recycled.

Healthful

- _ Easy to process
- _ Eudermic
- _ Non-allergenic
- _ Low-odor
- _ Non-hazardous
- _ Pleasant handling without itching
- _ Breathable
- _ Permeable
- _ Free of mineral fiber dust
- _ Free of formaldehyde
- _ Oeko-Tex standard 100 class 1
- _ Made from up to 70% recycled synthetic material (for example, from beverage bottles)

Durable

- _ Flame-resistant
- _ Long-term heat-resistant up to 70°C
- _ Permanently UV-resistant
- _ Resistant to infestation by vermin
- _ Resistant to infestation by mold



Individual configuration of color

- _ Individually printable
- _ Surface coatable according to either RAL or NCS

1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010
1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023
1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034
1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045
1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056
1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067
1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078
1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089
1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100
1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111
1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122
1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133
1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144
1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155
1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166
1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177
1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188
1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199
1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210
1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221
1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232
1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243
1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254
1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265
1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276
1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287
1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298
1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309
1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320
1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331
1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342
1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353
1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364
1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375
1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386
1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397
1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408
1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419
1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430
1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441
1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452
1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463
1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474
1475	1476	1477	1478	1479	1480	1481	1482	1483	1484	1485
1486	1487	1488	1489	1490	1491	1492	1493	1494	1495	1496
1497	1498	1499	1500	1501	1502	1503	1504	1505	1506	1507
1508	1509	1510	1511	1512	1513	1514	1515	1516	1517	1518
1519	1520	1521	1522	1523	1524	1525	1526	1527	1528	1529
1530	1531	1532	1533	1534	1535	1536	1537	1538	1539	1540
1541	1542	1543	1544	1545	1546	1547	1548	1549	1550	1551
1552	1553	1554	1555	1556	1557	1558	1559	1560	1561	1562
1563	1564	1565	1566	1567	1568	1569	1570	1571	1572	1573
1574	1575	1576	1577	1578	1579	1580	1581	1582	1583	1584
1585	1586	1587	1588	1589	1590	1591	1592	1593	1594	1595
1596	1597	1598	1599	1600	1601	1602	1603	1604	1605	1606
1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617
1618	1619	1620	1621	1622	1623	1624	1625	1626	1627	1628
1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639
1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650
1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1661
1662	1663	1664	1665	1666	1667	1668	1669	1670	1671	1672
1673	1674	1675	1676	1677	1678	1679	1680	1681	1682	1683
1684	1685	1686	1687	1688	1689	1690	1691	1692	1693	1694
1695	1696	1697	1698	1699	1700	1701	1702	1703	1704	1705
1706	1707	1708	1709	1710	1711	1712	1713	1714	1715	1716
1717	1718	1719	1720	1721	1722	1723	1724	1725	1726	1727
1728	1729	1730	1731	1732	1733	1734	1735	1736	1737	1738
1739	1740	1741	1742	1743	1744	1745	1746	1747	1748	1749
1750	1751	1752	1753	1754	1755	1756	1757	1758	1759	1760
1761	1762	1763	1764	1765	1766	1767	1768	1769	1770	1771
1772	1773	1774	1775	1776	1777	1778	1779	1780	1781	1782
1783	1784	1785	1786	1787	1788	1789	1790	1791	1792	1793
1794	1795	1796	1797	1798	1799	1800	1801	1802	1803	1804
1805	1806	1807	1808	1809	1810	1811	1812	1813	1814	1815
1816	1817	1818	1819	1820	1821	1822	1823	1824	1825	1826
1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837
1838	1839	1840	1841	1842	1843	1844	1845	1846	1847	1848
1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859
1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870
1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881
1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892
1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903
1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914
1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947
1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958
1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057
2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068
2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079
2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090
2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101
2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112
2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123
2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134
2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145
2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156
2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167
2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178
2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189
2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200
2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211
2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222
2223	2224	2225	2226	2227	2228	2229	2230	2231	2	

Product advantages

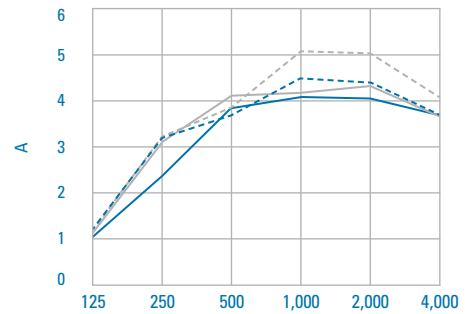
- _ Available in any dimension up to max width and length, no extra costs
- _ Absorber class A / α_w 1.0 (40 mm)
- _ Anodized or white frame, no extra costs
- _ Small weight, max. 12.5 kg / pc
- _ Only four mounting points
- _ Two mounting systems: suspension wire rope, or threaded rods
- _ Panel cutout and installation of equipment is possible
- _ Cloud remains in packaging until final cleaning
- _ Suitable for use in conjunction with concrete-core cooling
- _ Delivery of wall-mounted variants available
- _ Oeko-Tex Standard 100 class 1 / free of hazardous substances

Product parameters pinta POLAR

PROPERTY	
Base material	100% polyester
Material density	40 kg/m ³ ±15%
Material color	white
Maximum width	1,250 mm
Maximum length	3,000 mm
Custom color	coating available
Custom surface	printing available
Fire rating according to EN ISO 13501	fulfills class B-s1, d0 (20 mm) B-s2, d0 (40 mm)
Fire rating according to DIN 4102	fulfills class B1: flame-retardant
Long-term heat resistance	70 °C

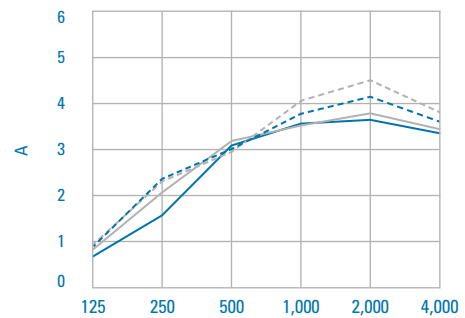
Acoustical properties: BALANCE POLAR ceiling cloud

Equivalent sound absorption area A, treated as a single absorber with a thickness of 40 mm



Dimensions: 3.0 m x 1.25 m, thickness 40 mm, plenum space 100 mm						
— A	1.01	2.43	3.80	4.14	4.09	3.73
Dimensions: 3.0 m x 1.25 m, thickness 40 mm, plenum space 200 mm						
--- A	1.10	3.08	4.11	4.21	4.35	3.85
Dimensions: 3.0 m x 1.25 m, thickness 40 mm, plenum space 300 mm						
.... A	1.25	3.16	3.63	4.50	4.40	3.86
Dimensions: 3.0 m x 1.25 m, thickness 40 mm, plenum space 500 mm						
-.-.- A	1.24	3.19	3.83	5.15	5.06	4.06

Equivalent sound absorption area A, treated as a single absorber with a thickness of 20 mm



Dimensions: 3.0 m x 1.25 m, thickness 20 mm, plenum space 100 mm						
— A	0.70	1.71	3.10	3.59	3.66	3.31
Dimensions: 3.0 m x 1.25 m, thickness 20 mm, plenum space 200 mm						
--- A	0.84	2.09	3.20	3.54	3.81	3.46
Dimensions: 3.0 m x 1.25 m, thickness 20 mm, plenum space 300 mm						
.... A	0.91	2.31	3.00	3.76	4.13	3.63
Dimensions: 3.0 m x 1.25 m, thickness 20 mm, plenum space 500 mm						
-.-.- A	0.95	2.28	2.98	4.01	4.50	3.81

Installation advice

pinta BALANCE POLAR ceiling cloud

The pinta BALANCE POLAR ceiling cloud is a high-quality, acoustically effective element. It is enclosed by an all-round supporting frame. The ceiling cloud can be suspended by means of conventional substructure materials that are approved by building authorities.

Z-support profiles are included with the product. They can be suspended from the ceiling using either threaded rods or steel wire ropes. There are two pre-fitted assembly profiles located on the rear of the ceiling cloud. Thanks to these profiles, the suspended ceiling cloud can easily be removed for inspection purposes.

We expressly point out that, in case of non-horizontal installation, the pinta BALANCE POLAR ceiling cloud must be secured at the customer's site so that it cannot shift or fall down.

As ceiling clouds consist of materials with various properties and tolerances, the pinta BALANCE POLAR ceiling cloud can display different dimensional tolerances depending on the material. The pinta ceiling cloud BALANCE POLAR is therefore not recommended for a joint-to-joint suspension.

Clean cotton gloves should be worn when installing the pinta BALANCE POLAR ceiling cloud.

A fastening set is required for assembling a ceiling cloud. pinta acoustic offers both a fastening kit with threaded rods as well as a fastening kit with steel wire ropes.

pinta installation kit with threaded rods for BALANCE POLAR ceiling cloud (not included with product)

The pinta installation kit for the BALANCE POLAR ceiling cloud is suitable as a substructure and means of assembly to fix the ceiling cloud to reinforced concrete ceilings.

The installation kit includes:

- 4 anchors with internal thread M6
- 4 threaded rods M6 x 500 mm
- 8 hexagon nuts M6
- 8 washers d = 6 mm
- including packaging

pinta acoustic expressly points out that the installation kit is only suitable for reinforced concrete ceilings. For other types of ceilings, a different type of anchor is to be chosen on site.

Installation Sequence

Suspension by means of threaded rods

1. Align and mark the drill hole positions
2. Drill the holes and set the anchors

Bore diameter	8	[mm]
Internal thread	M6	
Max. screw-in depth	13	[mm]
Min. screw-in depth	8	[mm]
Anchoring depth	30	[mm]

3. Screw in the threaded rods

4. Screw one hexagon nut onto each threaded rod, taking the mean positioning of the suspension height

>> Please note

Instead of installation by means of anchors, the pinta installation kit also allows for sticking the product directly to the concrete ceiling.

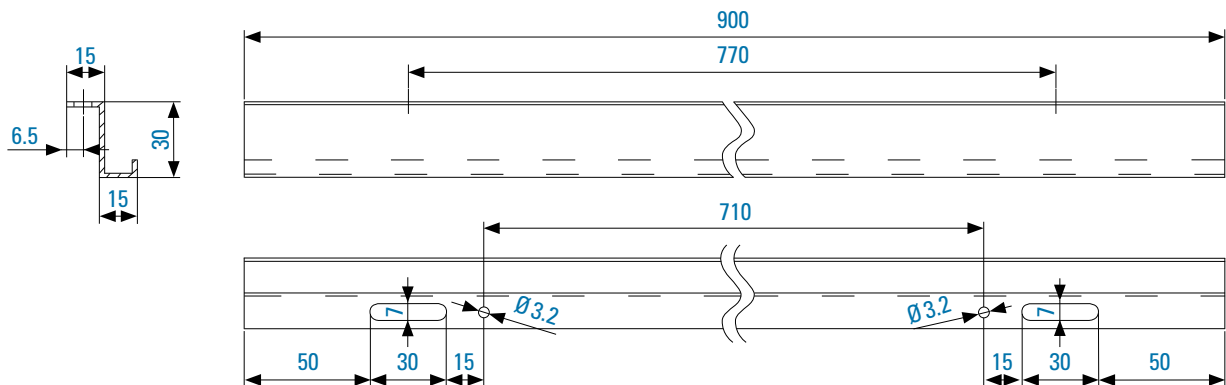
pinta STICK IT is tested and accredited. For details, please refer to our STICK IT product data sheet.

Suspending the ceiling cloud (standard lengths)

Fixing the ceiling cloud according to these drawings applies to lengths from 2,250 to 3,000 mm.

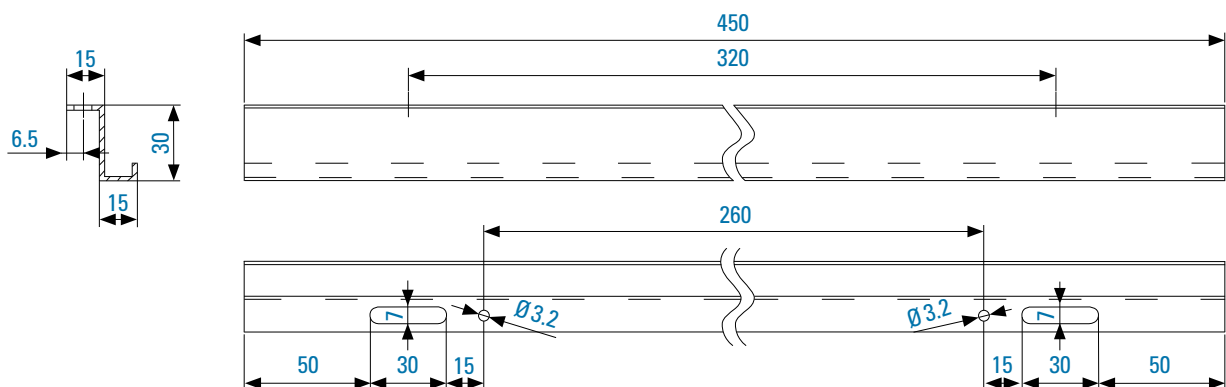
5.1 Attach the Z-support profiles to the threaded rods between two washers each and fix by means of other hexagon nut.

Width: 950 - 1,250 mm



5.2 Attach the Z-support profiles to the threaded rods between two washers each and fix by means of other hexagon nut.

Width: up to 950 mm

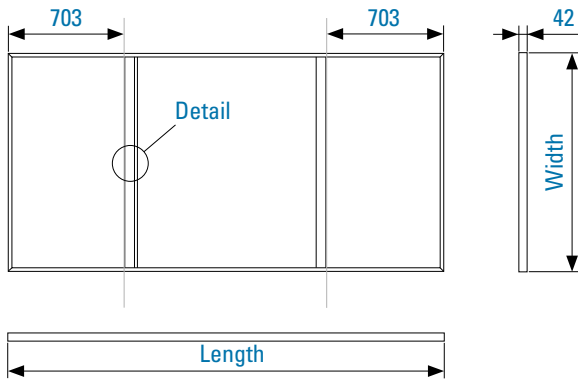


>> **Assembly FAQs**

As a rule, cutouts in the pinta BALANCE POLAR ceiling cloud should be made at the manufacturer's site. If necessary, on-site cutouts can be made using a jigsaw blade without teeth (e.g., Bosch T113A).

The cut edges must be covered by a frame provided by the customer, and it is imperative that the weight of fixtures be transferred to the raw ceiling.

6. Suspend the pinta BALANCE POLAR ceiling cloud



pinta BALANCE POLAR ceiling clouds with a length $\geq 2,800$ mm are equipped with an additional mounting profile in the middle, this is for product stability. For suspension, the two outer mounting profiles shall be used solely.

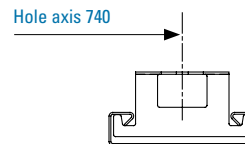
Example of setting the mounting holes

Detail: Suspension of Z-profile (two-sided facing outwards)

Attention: All dimensions refer to the outer edge of the cloud!



Example for measuring the drill holes for the installation of a BALANCE POLAR ceiling cloud in the format: 2,250 to 3,000 mm by means of suspension wires.



Detail: Suspension Z-profile (in the same direction)

Attention: All dimensions refer to the outer edge of the cloud!



>> Note

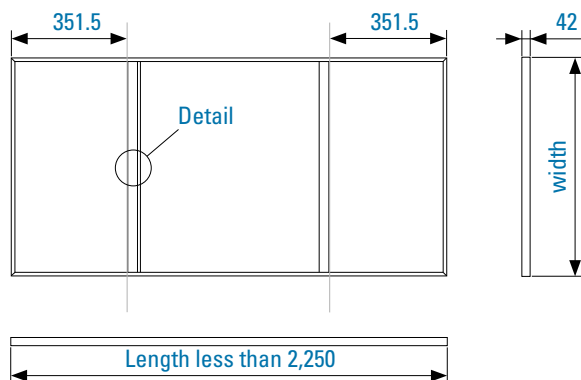
The information about our products is based on our current knowledge and experience. Due to the diversity of applications, the product description is always non-binding and in particular does not represent any

assurance of properties. This also applies to any existing industrial property rights of third parties. We reserve the right to make technical changes without notification.

**Suspending the ceiling cloud
(Special lengths smaller than 2,250 mm)**

The mounting of the ceiling cloud according to these drawings applies to special lengths under 2,250 mm.

1. Fit the washers and Z-support profiles and fix the Z-support profiles with 2 hexagon nuts
2. Suspend the pinta BALANCE POLAR ceiling cloud



Example of setting the mounting holes

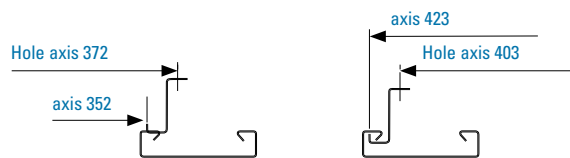
Detail: Suspension Z-profile (two-sided facing outwards)

Attention: All dimensions refer to the outer edge of the cloud!

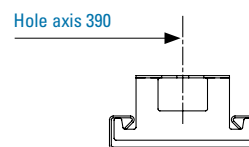


Detail: Suspension of Z-profile (in the same direction)

Note: All dimensions relate to the outer edge of the cloud!



Example for measuring drill holes for installation of a BALANCE POLAR ceiling cloud, format < 2,250 mm, with wire rope fastener.



>> Assembly FAQs

All data given on this page is only valid for ceiling clouds with an element length less than 2,250 mm!

pinta installation kit with steel wire ropes for ceiling cloud BALANCE POLAR (not included with product).

The pinta fastening kit with wire ropes for the ceiling cloud BALANCE POLAR is suitable both as a substructure and as a means of mounting the cloud to all ceilings depending on the anchor type (not included).

The fixing kit with wire ropes consists of:

- 4 ceiling fasteners M13x1 with bore 6.5 mm
- 4 screw caps M13x1
- 4 wire ropes, diameter 1.0 mm, with pressed-on nipple, tinned end, length 500 mm
- 4 wire fasteners 15 ZW M5
- 4 toothed lock washers M5
- 4 hexagon bolts M5x8
- 4 wire fasteners L-35/20
- incl. packaging

Assembly procedure**Suspension using rope fixing**

1. Measure the drill holes
2. Drill the hole and position the anchor
3. Fix the ceiling fastener
4. Lead the wire rope through the screw cap and then screw on the screw cap
5. Screw wire fastener 15 ZW onto wire fastener L-35/20 (secure the screw using toothed lock washers)
6. Insert wire rope into wire fastener 15 ZW and adjust height
7. Hook the wire fastener L-35/20 into the support profile on the back side of the cloud

Checklist

Material

The pinta BALANCE POLAR ceiling cloud consists of an extruded profile frame, an acoustic element with a thickness of 20 mm or 40 mm and 2 pieces of Z-support profiles. The visible side of the acoustic element is similar to RAL 9016.

The building material class of the acoustic element is B1 (flame retardant) according to DIN 4102. The material meets the requirements for fire class B-s1, d0 at 20 mm and B-s2, d0 at 40 mm according to EN ISO 13501.

Dimensions

- 2,000 x 1,250 mm
- 2,500 x 1,250 mm
- 3,000 x 1,250 mm
- Special dimension:
_____ x _____ mm

Frame width

- 1.4 mm
- 10 mm

Frame color

- E6EV1 (natural aluminum)
- RAL 9016 (white)

Color coating

- Color designation _____

Thickness

- 20 mm
- 40 mm

Fastening

- Fastening kit with threaded rods for reinforced concrete ceilings consisting of:
 - 4 anchors with internal thread M6
 - 4 threaded rods M6 x 500 mm
 - 8 hexagon nuts M6
 - 8 washers d = 6 mmincluding packing
- Fastening kit with steel wire ropes consisting of:
 - 4 ceiling fasteners M13x1 with bore 6.5 mm
 - 4 screw caps M13x1
 - 4 wire ropes, diameter 1.0 mm with pressed-on nipple, tinned end, length 500 mm
 - 4 wire fasteners 15 ZW M5
 - 4 toothed lock washers M5
 - 4 hexagon bolts M5x8
 - 4 wire fasteners L-35/20incl. packing

>> | **Contact / Inquiry**

Company stamp:

Quantity:

pinta acoustic gmbh
Otto-Hahn-Straße 7
82216 Maisach, Germany
phone +49 (0)8141. 88 88-0
fax +49 (0)8141. 88 88-555
info@pinta-acoustic.de