



## **Deklaracja właściwości użytkowych nr/Declaration of performance no 018-2016**

1. Niepowtarzalny kod identyfikacyjny typu wyrobu:  
Unique identification code of the product-type:

**PLAIN F**

2. Zamierzone zastosowanie lub zastosowania:  
Intended use/es:

**W instalacjach grzewczych w budynkach  
In heating systems in buildings**

3. Producent:  
Manufacturer:

**TERMA Sp. z o. o.  
80-298 Gdańsk  
Czaple 100  
Tel: +48 58 / 694 05 55  
Fax: : +48 58 / 694 05 56  
Email: [terma@termagroup.pl](mailto:terma@termagroup.pl)**

4. System(-y) oceny i weryfikacji stałości właściwości użytkowych:  
System/s of AVCP:

**System 3**

5. Norma zharmonizowana:  
Harmonised standard:

**EN 442-1:2014**

Jednostka lub jednostki notyfikowane:  
Notified body/ies:

**INSTYTUT ENERGETYKI  
Oddział Techniki Grzewczej i Sanitarnej w Radomiu  
26-610 Radom, ul. Wilcza 8  
Numer notyfikacji 1452**

7. Deklarowane właściwości użytkowe:

| Zasadnicze charakterystyki<br>Essential characteristics   | Właściwości użytkowe<br>Properties   | Zharmonizowana specyfikacja techniczna<br>Harmonised technical specification |
|---|--|--|
| Reakcja na ogień<br>Reaction to fire  | A1   | EN-442-1:2014  |
| Uwalnianie substancji niebezpiecznych<br>Release of dangerous substances  | Nie uwalnia<br>No releases   |  |
| Szczelność pod działaniem ciśnienia<br>Pressure tightness   | Brak wycieku przy ciśnieniu 1,3 krotnie większym od MOP<br>No leakage at 1,3 x maximum MOP   |  |
| Temperatura powierzchni<br>The surface temperature  | Max. 95°C  |  |
| Odporność na działanie ciśnienia<br>Resistance to pressure  | Brak pęknięć przy ciśnieniu 1,69 krotnie większym od MOP<br>No breakage at 1,69 x MOP<br>Maksymalne dopuszczalne ciśnienie robocze (MOP): 1000kPa<br>Maximum operating pressure (MOP): 1000kPa |  |
| Nominalna moc cieplna<br>Rated thermal output   | Tabela 1<br>Table 1  |  |
| Moc cieplna w różnych warunkach eksploatacyjnych (charakterystyka)<br>Thermal output in different operating conditions (characteristic curve) | $\Phi = K_M \cdot \Delta T^n$ ,<br>$K_M$ i $n$ patrz Tabela 1<br>$K_M$ i $n$ see Table 1   |  |
| Trwałość jako:<br>Durability as:  |  |  |
| Odporność na korozję<br>Resistance against corrosion  | Brak korozji po 100 h w wilgoci<br>Absence of surface corrosion after 100 h humidity   |  |
| Odporność na słabe uderzenia<br>Resistance against minor impact   | Klasa 0<br>Class 0   |  |

Tabela 1 /Table 1

| Nazwa<br>Name | Wysokość<br>Hight | Szerokość<br>Width | Moc<br>Output<br>$\Delta T=50^{\circ}\text{C}$ | Moc<br>Output<br>$\Delta T=30^{\circ}\text{C}$ | $K_M$   | n      |
|---------------|-------------------|--------------------|--|--|---------|--------|
| [-]           | [mm]              | [mm]               | [W]  | [W]  | [-]     | [-]    |
| PLAIN F       | 520               | 80                 | 86   | 46   | 0,6611  | 1,2453 |
| PLAIN F       | 520               | 278                | 259  | 137  | 1,9834  | 1,2453 |
| PLAIN F       | 520               | 360                | 345  | 183  | 2,6445  | 1,2453 |
| PLAIN F       | 520               | 442                | 432  | 228  | 3,3056  | 1,2453 |
| PLAIN F       | 520               | 524                | 518  | 274  | 3,9667  | 1,2453 |
| PLAIN F       | 520               | 606                | 604  | 320  | 4,6279  | 1,2453 |
| PLAIN F       | 520               | 688                | 690  | 365  | 5,2890  | 1,2453 |
| PLAIN F       | 520               | 770                | 777  | 411  | 5,9501  | 1,2453 |
| PLAIN F       | 520               | 852                | 863  | 457  | 6,6112  | 1,2453 |
| PLAIN F       | 520               | 934                | 949  | 503  | 7,2724  | 1,2453 |
| PLAIN F       | 520               | 1016               | 1036   | 548  | 7,9335  | 1,2453 |
| PLAIN F       | 520               | 1098               | 1122   | 594  | 8,5946  | 1,2453 |
| PLAIN F       | 520               | 1180               | 1208   | 640  | 9,2557  | 1,2453 |
| PLAIN F       | 520               | 1262               | 1295   | 685  | 9,9169  | 1,2453 |
| PLAIN F       | 520               | 1344               | 1381   | 731  | 10,5780 | 1,2453 |
| PLAIN F       | 520               | 1426               | 1467   | 777  | 11,2391 | 1,2453 |
| PLAIN F       | 620               | 80                 | 103  | 54   | 0,7785  | 1,2475 |
| PLAIN F       | 620               | 278                | 308  | 163  | 2,3355  | 1,2475 |
| PLAIN F       | 620               | 360                | 410  | 217  | 3,1140  | 1,2475 |
| PLAIN F       | 620               | 442                | 513  | 271  | 3,8925  | 1,2475 |
| PLAIN F       | 620               | 524                | 615  | 325  | 4,6710  | 1,2475 |
| PLAIN F       | 620               | 606                | 718  | 379  | 5,4495  | 1,2475 |
| PLAIN F       | 620               | 688                | 820  | 434  | 6,2280  | 1,2475 |
| PLAIN F       | 620               | 770                | 923  | 488  | 7,0065  | 1,2475 |
| PLAIN F       | 620               | 852                | 1025   | 542  | 7,7850  | 1,2475 |
| PLAIN F       | 620               | 934                | 1128   | 596  | 8,5635  | 1,2475 |
| PLAIN F       | 620               | 1016               | 1230   | 650  | 9,3420  | 1,2475 |
| PLAIN F       | 620               | 1098               | 1333   | 705  | 10,1205 | 1,2475 |
| PLAIN F       | 620               | 1180               | 1435   | 759  | 10,8990 | 1,2475 |
| PLAIN F       | 620               | 1262               | 1538   | 813  | 11,6775 | 1,2475 |
| PLAIN F       | 620               | 1344               | 1640   | 867  | 12,4560 | 1,2475 |
| PLAIN F       | 620               | 1426               | 1743   | 921  | 13,2345 | 1,2475 |
| PLAIN F       | 720               | 80                 | 124  | 66   | 1,0073  | 1,2303 |
| PLAIN F       | 720               | 278                | 372  | 198  | 3,0220  | 1,2303 |
| PLAIN F       | 720               | 360                | 496  | 265  | 4,0294  | 1,2303 |
| PLAIN F       | 720               | 442                | 620  | 331  | 5,0367  | 1,2303 |
| PLAIN F       | 720               | 524                | 744  | 397  | 6,0441  | 1,2303 |
| PLAIN F       | 720               | 606                | 868  | 463  | 7,0514  | 1,2303 |
| PLAIN F       | 720               | 688                | 992  | 529  | 8,0588  | 1,2303 |
| PLAIN F       | 720               | 770                | 1116   | 595  | 9,0661  | 1,2303 |
| PLAIN F       | 720               | 852                | 1240   | 661  | 10,0735 | 1,2303 |
| PLAIN F       | 720               | 934                | 1364   | 728  | 11,0808 | 1,2303 |
| PLAIN F       | 720               | 1016               | 1488   | 794  | 12,0882 | 1,2303 |
| PLAIN F       | 720               | 1098               | 1612   | 860  | 13,0955 | 1,2303 |

|         |     |      |      |      |         |        |
|---------|-----|------|------|------|---------|--------|
| PLAIN F | 720 | 1180 | 1736 | 926  | 14,1029 | 1,2303 |
| PLAIN F | 720 | 1262 | 1860 | 992  | 15,1102 | 1,2303 |
| PLAIN F | 720 | 1344 | 1984 | 1058 | 16,1175 | 1,2303 |
| PLAIN F | 720 | 1426 | 2108 | 1124 | 17,1249 | 1,2303 |
| PLAIN F | 720 | 1508 | 2232 | 1191 | 18,1322 | 1,2303 |
| PLAIN F | 720 | 1590 | 2356 | 1257 | 19,1396 | 1,2303 |
| PLAIN F | 720 | 1672 | 2480 | 1323 | 20,1469 | 1,2303 |
| PLAIN F | 720 | 1754 | 2604 | 1389 | 21,1543 | 1,2303 |
| PLAIN F | 720 | 1836 | 2728 | 1455 | 22,1616 | 1,2303 |
| PLAIN F | 720 | 1918 | 2852 | 1521 | 23,1690 | 1,2303 |
| PLAIN F | 720 | 2000 | 2976 | 1587 | 24,1763 | 1,2303 |
| PLAIN F | 720 | 2082 | 3100 | 1654 | 25,1837 | 1,2303 |
| PLAIN F | 720 | 2164 | 3224 | 1720 | 26,1910 | 1,2303 |
| PLAIN F | 720 | 2246 | 3348 | 1786 | 27,1984 | 1,2303 |
| PLAIN F | 720 | 2328 | 3472 | 1852 | 28,2057 | 1,2303 |
| PLAIN F | 720 | 2410 | 3596 | 1918 | 29,2130 | 1,2303 |
| PLAIN F | 720 | 2492 | 3720 | 1984 | 30,2204 | 1,2303 |
| PLAIN F | 720 | 2558 | 3844 | 2050 | 31,2277 | 1,2303 |
| PLAIN F | 720 | 2640 | 3968 | 2117 | 32,2351 | 1,2303 |
| PLAIN F | 720 | 2721 | 4092 | 2183 | 33,2424 | 1,2303 |
| PLAIN F | 720 | 2803 | 4216 | 2249 | 34,2498 | 1,2303 |
| PLAIN F | 720 | 2884 | 4340 | 2315 | 35,2571 | 1,2303 |
| PLAIN F | 720 | 2966 | 4464 | 2381 | 36,2645 | 1,2303 |
| PLAIN F | 720 | 3047 | 4588 | 2447 | 37,2718 | 1,2303 |
| PLAIN F | 720 | 3129 | 4712 | 2513 | 38,2792 | 1,2303 |
| PLAIN F | 720 | 3210 | 4836 | 2580 | 39,2865 | 1,2303 |
| PLAIN F | 720 | 3292 | 4960 | 2646 | 40,2939 | 1,2303 |
| PLAIN F | 920 | 80   | 161  | 85   | 1,2334  | 1,2453 |
| PLAIN F | 920 | 278  | 483  | 256  | 3,7002  | 1,2453 |
| PLAIN F | 920 | 360  | 644  | 341  | 4,9335  | 1,2453 |
| PLAIN F | 920 | 442  | 805  | 426  | 6,1669  | 1,2453 |
| PLAIN F | 920 | 524  | 966  | 511  | 7,4003  | 1,2453 |
| PLAIN F | 920 | 606  | 1127 | 597  | 8,6337  | 1,2453 |
| PLAIN F | 920 | 688  | 1288 | 682  | 9,8671  | 1,2453 |
| PLAIN F | 920 | 770  | 1449 | 767  | 11,1005 | 1,2453 |
| PLAIN F | 920 | 852  | 1610 | 852  | 12,3338 | 1,2453 |
| PLAIN F | 920 | 934  | 1771 | 937  | 13,5672 | 1,2453 |
| PLAIN F | 920 | 1016 | 1932 | 1023 | 14,8006 | 1,2453 |
| PLAIN F | 920 | 1098 | 2093 | 1108 | 16,0340 | 1,2453 |
| PLAIN F | 920 | 1180 | 2254 | 1193 | 17,2674 | 1,2453 |
| PLAIN F | 920 | 1262 | 2415 | 1278 | 18,5008 | 1,2453 |
| PLAIN F | 920 | 1344 | 2576 | 1364 | 19,7342 | 1,2453 |
| PLAIN F | 920 | 1426 | 2737 | 1449 | 20,9675 | 1,2453 |

Właściwości użytkowe określonego powyżej wyrobu są zgodne z zestawem deklarowanych właściwości użytkowych. Niniejsza deklaracja właściwości użytkowych wydana zostaje zgodnie z rozporządzeniem (UE) nr 305/2011 na wyłączną odpowiedzialność producenta określonego powyżej.



The performance of the product identified above is in conformity with the set of declared performance/s.  
This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

W imieniu producenta podpisał:

Signed for and on behalf of the manufacturer by:

**Patrycja Kopczyńska**

Czaple, dnia 2016.10.21