$^2F_4(2)'.2 \pmod{5}$

| | blocks | defect | matrix |
|----|---|-----------------------|--|
| G: | $ \begin{array}{c} 1\\2\\3=\overline{2}\\4\\5 \end{array} $ | 2 0 0 0 0 | 20×16 $300_1 = \chi_{7,0}, \varphi_{9,0}$ $300_2 = \chi_{7,1}, \varphi_{9,1}$ $325_1 = \chi_{8,0}, \varphi_{10,0}$ $325_2 = \chi_{8,1}, \varphi_{10,1}$ |

| blocks | defect | matrix |
|-------------|-------------|---|
| 6 7 8 | 0 0 0 | $650_1 = \chi_{14,0}, \varphi_{17,0}$ $650_2 = \chi_{14,1}, \varphi_{17,1}$ $675_1 = \chi_{15,0}, \varphi_{18,0}$ $675_2 = \chi_{15,1}, \varphi_{18,1}$ |
| 10 | 0 | $2600_1 = \chi_{18+}, \varphi_{19+}$ |

| Block 1: | $\varphi_{1,0}$ | $\varphi_{1,1}$ | φ_{2+} | $\varphi_{4,0}$ | $\varphi_{4,1}$ | $\varphi_{5,0}$ | $\varphi_{5,1}$ | $\varphi_{6,0}$ | $\varphi_{6,1}$ | φ_{7+} | $\varphi_{11,0}$ | $\varphi_{11,1}$ | $\varphi_{12,0}$ |
|------------------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|------------------|------------------|------------------|
| $1_1 = \chi_{1,0}$ | 1 | | | | | | | | • | | | | |
| $1_2 = \chi_{1,1}$ | | 1 | | | | | | | | | • | | • |
| $52_1 = \chi_{2+}$ | | | 1 | | | | | | | | • | | |
| $27_1 = \chi_{4,0}$ | | | | 1 | | | | | | | • | | |
| $27_2 = \chi_{4,1}$ | | • | | • | 1 | | • | • | • | • | • | • | |
| $27_3 = \chi_{5,0}$ | | • | | • | • | 1 | • | • | • | • | • | • | |
| $27_4 = \chi_{5,1}$ | | | | | | | 1 | | | | | | |
| $78_1 = \chi_{6,0}$ | | | | | | | | 1 | | | | | |
| $78_2 = \chi_{6,1}$ | | | | | | | | | 1 | | • | | |
| $351_1 = \chi_{9,0}$ | 1 | | | 1 | | 1 | | 1 | | 1 | | | |
| $351_2 = \chi_{9,1}$ | | 1 | | | 1 | | 1 | | 1 | 1 | • | | |
| $351_3 = \chi_{10,0}$ | | | | | | | | | | | 1 | | |
| $351_4 = \chi_{10,1}$ | | | | | | | | | | | • | 1 | |
| $351_5 = \chi_{11,0}$ | | | | | | | | | | | • | | 1 |
| $351_6 = \chi_{11,1}$ | | | | | | | | | | | • | | |
| $1248_1 = \chi_{12+}$ | 1 | 1 | | 1 | 1 | 1 | 1 | | | 1 | • | | |
| $1404_1 = \chi_{16+}$ | | | | | | | | | | 1 | • | | • |
| $1728_1 = \chi_{20,0}$ | | | 1 | 1 | | | 1 | | | | 1 | | |
| $1728_2 = \chi_{20,1}$ | | | 1 | | 1 | 1 | | | | | | 1 | 1 |
| $4096_1 = \chi_{21+}$ | | • | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

| (Block 1:) | $\varphi_{12,1}$ | φ_{13+} | φ_{15+} | | |
|------------------------|------------------|-----------------|-----------------|------------------|---|
| $1_1 = \chi_{1,0}$ | | | | | |
| $1_2 = \chi_{1,1}$ | | | | $\varphi_{1,0}$ | = |
| $52_1 = \chi_{2+}$ | | | | $\varphi_{1,1}$ | = |
| $27_1 = \chi_{4,0}$ | | • | ٠ | $arphi_{2+}$ | = |
| $27_2 = \chi_{4,1}$ | | • | ٠ | $\varphi_{4,0}$ | = |
| $27_3 = \chi_{5,0}$ | | • | ٠ | $\varphi_{4,1}$ | = |
| $27_4 = \chi_{5,1}$ | | • | ٠ | $arphi_{5,0}$ | = |
| $78_1 = \chi_{6,0}$ | | • | ٠ | $arphi_{5,1}$ | = |
| $78_2 = \chi_{6,1}$ | | | • | $arphi_{6,0}$ | = |
| $351_1 = \chi_{9,0}$ | | • | • | $\varphi_{6,1}$ | = |
| $351_2 = \chi_{9,1}$ | | • | • | $arphi_{7+}$ | = |
| $351_3 = \chi_{10,0}$ | | • | ٠ | $\varphi_{11,0}$ | = |
| $351_4 = \chi_{10,1}$ | | • | ٠ | $\varphi_{11,1}$ | = |
| $351_5 = \chi_{11,0}$ | | • | | $\varphi_{12,0}$ | = |
| $351_6 = \chi_{11,1}$ | 1 | • | | $\varphi_{12,1}$ | = |
| $1248_1 = \chi_{12+}$ | | 1 | | φ_{13+} | = |
| $1404_1 = \chi_{16+}$ | | • | 1 | φ_{15+} | = |
| $1728_1 = \chi_{20,0}$ | 1 | 1 | | | |
| $1728_2 = \chi_{20,1}$ | | 1 | | | |
| $4096_1 = \chi_{21+}$ | 1 | 1 | 1 | | |