$G_2(4).2$ (mod 7)

	blocks	defect	matrix
G :	1	1	7×6
	2	1	7×6
	3	1	7×6
	4	0	$350_1 = \chi_{6,0}, \varphi_{6,0}$
	5	0	$350_2 = \chi_{6,1}, \varphi_{6,1}$
	6	0	$364_1 = \chi_{7,0}, \varphi_{7,0}$
	7	0	$364_2 = \chi_{7,1}, \varphi_{7,1}$
	8	0	$364_3 = \chi_{8,0}, \varphi_{8,0}$
	9	0	$364_4 = \chi_{8,1}, \varphi_{8,1}$
	10	0	$378_1 = \chi_{9,0}, \varphi_{9,0}$
	$11 = \overline{10}$	0	$378_2 = \chi_{9,1}, \varphi_{9,1}$
	12	0	$1638_1 = \chi_{11+}, \varphi_{11+}$
	13	0	$1638_2 = \chi_{13+}, \varphi_{13+}$
	14	0	$1365_1 = \chi_{16,0}, \varphi_{16,0}$
	15	0	$1365_2 = \chi_{16,1}, \varphi_{16,1}$
	16	0	$6552_1 = \chi_{20+}, \varphi_{19+}$
	17	0	$6552_2 = \chi_{22+}, \varphi_{21+}$
	18	0	$8190_1 = \chi_{24+}, \varphi_{23+}$
	19	0	$8190_2 = \chi_{26+}, \varphi_{25+}$
	20	0	$9450_1 = \chi_{30+}, \varphi_{27+}$
	21	0	$5460_1 = \chi_{32,0}, \varphi_{29,0}$
	22	0	$5460_2 = \chi_{32,1}, \varphi_{29,1}$
$2.G$:	23	1	7×6
	24	1	5×3
	25	0	$364_5 = \chi_{36,0}, \varphi_{33,0}$
	26	0	$364_6 = \chi_{36,1}, \varphi_{33,1}$
	27	0	$560_1 = \chi_{37,0}, \varphi_{34,0}$
	28	0	$560_2 = \chi_{37,1}, \varphi_{34,1}$
	29	0	$1260_1 = \chi_{38,0}, \varphi_{35,0}$
	$30 = \overline{29}$	0	$1260_2 = \chi_{38,1}, \varphi_{35,1}$
	31	0	$3640_1 = \chi_{41+}, \varphi_{38+}$
	32	0	$2016_1 = \chi_{43,0}, \varphi_{40,0}$
	$33 = \overline{32}$	0	$2016_2 = \chi_{43,1}, \varphi_{40,1}$
	34	0	$4368_1 = \chi_{44+}, \varphi_{43+}$
	35	0	$3276_1 = \chi_{46,0}, \varphi_{45,0}$
	$36 = \overline{35}$	0	$3276_2 = \chi_{46,1}, \varphi_{45,1}$
	37	0	$11648_1 = \chi_{53+}, \varphi_{48+}$

Block 1:

	$\varphi_{1,0}$	$\varphi_{3,1}$	$\varphi_{4,0}$	$\varphi_{5,0}$	$\varphi_{10,0}$	$\varphi_{17,0}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.
$78_2 = \chi_{3,1}$	.	1	.	.	.	.
$300_1 = \chi_{4,0}$	.	.	1	.	.	.
$300_3 = \chi_{5,0}$	.	.	.	1	.	.
$650_1 = \chi_{10,0}$	1	.	.	.	1	.
$2925_1 = \chi_{19,0}$	.	1	.	.	.	1
$4096_1 = \chi_{28,0}$	.	.	1	1	1	1

$$\begin{aligned}
\varphi_{1,0} &= 1_1 \\
\varphi_{3,1} &= 78_2 \\
\varphi_{4,0} &= 300_1 \\
\varphi_{5,0} &= 300_3 \\
\varphi_{10,0} &= 649_1 \\
\varphi_{17,0} &= 2847_1
\end{aligned}$$

Block 2:

	$\varphi_{1,1}$	$\varphi_{3,0}$	$\varphi_{4,1}$	$\varphi_{5,1}$	$\varphi_{10,1}$	$\varphi_{17,1}$
$1_2 = \chi_{1,1}$	1	.	.	.	.	.
$78_1 = \chi_{3,0}$	.	1	.	.	.	.
$300_2 = \chi_{4,1}$	.	.	1	.	.	.
$300_4 = \chi_{5,1}$	.	.	.	1	.	.
$650_2 = \chi_{10,1}$	1	.	.	.	1	.
$2925_2 = \chi_{19,1}$	.	1	.	.	.	1
$4096_2 = \chi_{28,1}$	.	.	1	1	1	1

$$\begin{aligned}
\varphi_{1,1} &= 1_2 \\
\varphi_{3,0} &= 78_1 \\
\varphi_{4,1} &= 300_2 \\
\varphi_{5,1} &= 300_4 \\
\varphi_{10,1} &= 649_2 \\
\varphi_{17,1} &= 2847_2
\end{aligned}$$

Block 3:

	$\varphi_{2,0}$	$\varphi_{2,1}$	$\varphi_{15,0}$	$\varphi_{15,1}$	$\varphi_{18,0}$	$\varphi_{18,1}$
$65_1 = \chi_{2,0}$	1	.	.	.	.	.
$65_2 = \chi_{2,1}$	.	1	.	.	.	.
$1300_1 = \chi_{15,0}$	.	1	1	.	.	.
$1300_2 = \chi_{15,1}$	1	.	.	1	.	.
$5850_1 = \chi_{17+}$	.	.	.	.	1	1
$4160_1 = \chi_{29,0}$	.	.	1	.	1	.
$4160_2 = \chi_{29,1}$	.	.	.	1	.	1

$$\begin{aligned}
\varphi_{2,0} &= 65_1 \\
\varphi_{2,1} &= 65_2 \\
\varphi_{15,0} &= 1235_1 \\
\varphi_{15,1} &= 1235_2 \\
\varphi_{18,0} &= 2925_1 \\
\varphi_{18,1} &= 2925_2
\end{aligned}$$

Block 23:

	$\varphi_{30,0}$	$\varphi_{30,1}$	$\varphi_{46,0}$	$\varphi_{46,1}$	$\varphi_{47,0}$	$\varphi_{47,1}$
$12_1 = \chi_{33,0}$	1	.	.	.	.	.
$12_2 = \chi_{33,1}$	.	1	.	.	.	.
$3600_2 = \chi_{47,0}$	.	.	1	.	.	.
$3600_3 = \chi_{47,1}$	.	.	.	1	.	.
$7800_1 = \chi_{50+}$	1	1	.	.	1	1
$7488_2 = \chi_{55,0}$	.	.	.	1	1	.
$7488_3 = \chi_{55,1}$	.	.	1	.	.	1

$$\begin{aligned}
\varphi_{30,0} &= 12_1 \\
\varphi_{30,1} &= 12_2 \\
\varphi_{46,0} &= 3600_1 \\
\varphi_{46,1} &= 3600_2 \\
\varphi_{47,0} &= 3888_1 \\
\varphi_{47,1} &= 3888_2
\end{aligned}$$

Block 24:	φ_{31+}	φ_{36+}	φ_{41+}
$208_1 = \chi_{34+}$	1	.	.
$3600_1 = \chi_{39+}$	1	1	.
$7488_1 = \chi_{48+}$	.	1	1
$4096_3 = \chi_{52,0}$	.	.	1
$4096_4 = \chi_{52,1}$	.	.	1

$$\varphi_{31+} = 208_1$$
$$\varphi_{36+} = 3392_1$$
$$\varphi_{41+} = 4096_1$$