

${}^2F_4(2)'.2 \pmod{13}$

	blocks	defect	matrix
$G :$	1	1	13×12
	2	0	$52_1 = \chi_{2+}, \varphi_{2+}$
	3	0	$78_1 = \chi_{6,0}, \varphi_{6,0}$
	4	0	$78_2 = \chi_{6,1}, \varphi_{6,1}$
	5	0	$325_1 = \chi_{8,0}, \varphi_{8,0}$
	6	0	$325_2 = \chi_{8,1}, \varphi_{8,1}$
	7	0	$351_1 = \chi_{9,0}, \varphi_{9,0}$
	8	0	$351_2 = \chi_{9,1}, \varphi_{9,1}$
	9	0	$351_3 = \chi_{10,0}, \varphi_{10,0}$

	blocks	defect	matrix
	10	0	$351_4 = \chi_{10,1}, \varphi_{10,1}$
	$11 = \overline{9}$	0	$351_5 = \chi_{11,0}, \varphi_{11,0}$
	$12 = \overline{10}$	0	$351_6 = \chi_{11,1}, \varphi_{11,1}$
	13	0	$1248_1 = \chi_{12+}, \varphi_{12+}$
	14	0	$650_1 = \chi_{14,0}, \varphi_{14,0}$
	15	0	$650_2 = \chi_{14,1}, \varphi_{14,1}$
	16	0	$1404_1 = \chi_{16+}, \varphi_{16+}$
	17	0	$2600_1 = \chi_{18+}, \varphi_{18+}$

Block 1:	$\varphi_{1,0}$	$\varphi_{1,1}$	$\varphi_{4,0}$	$\varphi_{4,1}$	$\varphi_{5,0}$	$\varphi_{5,1}$	$\varphi_{7,0}$	$\varphi_{7,1}$	$\varphi_{15,0}$	$\varphi_{15,1}$	$\varphi_{20,0}$	$\varphi_{20,1}$
$1_1 = \chi_{1,0}$	1	.	.	.	.	.	.	.	.	.	.	.
$1_2 = \chi_{1,1}$	.	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	.	.	.	.	.	.
$300_1 = \chi_{7,0}$	.	.	.	.	.	.	1	.	.	.	.	.
$300_2 = \chi_{7,1}$	.	.	.	.	.	.	.	1	.	.	.	.
$675_1 = \chi_{15,0}$	1	.	.	.	.	.	.	.	1	.	.	.
$675_2 = \chi_{15,1}$	.	1	.	.	.	.	.	.	.	1	.	.
$1728_1 = \chi_{20,0}$	.	.	1	.	.	1	1	.	.	.	1	.
$1728_2 = \chi_{20,1}$	.	.	.	1	1	.	.	1	.	.	.	1
$4096_1 = \chi_{21+}$	.	.	.	.	.	.	.	.	1	1	1	1

$$\begin{array}{ll}
 \varphi_{1,0} & = 1_1 \\
 \varphi_{1,1} & = 1_2 \\
 \varphi_{4,0} & = 27_1 \\
 \varphi_{4,1} & = 27_2 \\
 \varphi_{5,0} & = 27_3 \\
 \varphi_{5,1} & = 27_4 \\
 \varphi_{7,0} & = 300_1 \\
 \varphi_{7,1} & = 300_2 \\
 \varphi_{15,0} & = 674_1 \\
 \varphi_{15,1} & = 674_2 \\
 \varphi_{20,0} & = 1374_1 \\
 \varphi_{20,1} & = 1374_2
 \end{array}$$