Co_2 (mod 23)

	blocks	defect	matrix
$G:$	1	1	13×11
	2	0	$23_1 = \chi_2, \varphi_2$
	3	0	$253_1 = \chi_3, \varphi_3$
	4	0	$1771_1 = \chi_5, \varphi_5$
	5	0	$2024_1 = \chi_6, \varphi_6$
	6	0	$2277_1 = \chi_7, \varphi_7$
	7	0	$4025_1 = \chi_8, \varphi_8$
	8	0	$7084_1 = \chi_9, \varphi_9$
	9	0	$12650_1 = \chi_{14}, \varphi_{13}$
	10	0	$23000_1 = \chi_{15}, \varphi_{14}$
	11	0	$31625_1 = \chi_{16}, \varphi_{15}$
	12	0	$31625_2 = \chi_{17}, \varphi_{16}$
	13	0	$31878_1 = \chi_{18}, \varphi_{17}$
	14	0	$44275_1 = \chi_{20}, \varphi_{19}$
	15	0	$63250_1 = \chi_{21}, \varphi_{20}$
	16	0	$113850_1 = \chi_{24}, \varphi_{23}$
	17	0	$129536_1 = \chi_{25}, \varphi_{24}$
	18	0	$177100_1 = \chi_{26}, \varphi_{25}$
	19	0	$184437_1 = \chi_{27}, \varphi_{26}$
	20	0	$212520_1 = \chi_{28}, \varphi_{27}$
	21	0	$221375_1 = \chi_{29}, \varphi_{28}$
	22	0	$226688_1 = \chi_{30}, \varphi_{29}$
	23	0	$239085_1 = \chi_{31}, \varphi_{30}$
	$24 = \overline{23}$	0	$239085_2 = \chi_{32}, \varphi_{31}$
	25	0	$245916_1 = \chi_{33}, \varphi_{32}$
	26	0	$253000_1 = \chi_{34}, \varphi_{33}$
	27	0	$284625_1 = \chi_{35}, \varphi_{34}$
	28	0	$312984_1 = \chi_{36}, \varphi_{35}$
	29	0	$368874_1 = \chi_{37}, \varphi_{36}$
	30	0	$398475_1 = \chi_{38}, \varphi_{37}$
	31	0	$398475_2 = \chi_{39}, \varphi_{38}$
	32	0	$430353_1 = \chi_{40}, \varphi_{40}$
	33	0	$442750_1 = \chi_{41}, \varphi_{41}$
	34	0	$558900_1 = \chi_{44}, \varphi_{43}$
	35	0	$637560_1 = \chi_{45}, \varphi_{44}$
	36	0	$664125_1 = \chi_{46}, \varphi_{45}$
	37	0	$664125_2 = \chi_{47}, \varphi_{46}$
	38	0	$664125_3 = \chi_{48}, \varphi_{47}$
	39	0	$853875_1 = \chi_{49}, \varphi_{48}$
	40	0	$1288000_1 = \chi_{50}, \varphi_{49}$

	blocks	defect	matrix
	41	0	$1291059_1 = \chi_{51}, \varphi_{50}$
	42	0	$1771000_1 = \chi_{52}, \varphi_{52}$
	43	0	$1771000_2 = \chi_{53}, \varphi_{53}$
	44	0	$1943040_1 = \chi_{55}, \varphi_{54}$
	45	0	$1992375_1 = \chi_{56}, \varphi_{55}$
	46	0	$2040192_1 = \chi_{58}, \varphi_{56}$
	47	0	$2072576_1 = \chi_{59}, \varphi_{57}$
	48	0	$2095875_1 = \chi_{60}, \varphi_{58}$

Block 1:	φ_1	φ_4	φ_{10}	φ_{11}	φ_{12}	φ_{18}	φ_{21}	φ_{22}	φ_{39}	φ_{42}	φ_{51}
$1_1 = \chi_1$	1	.	.	.	.	.	.	.	.	.	.
$275_1 = \chi_4$	1	1	.	.	.	.	.	.	.	.	.
$9625_1 = \chi_{10}$	.	.	1	.	.	.	.	.	.	.	.
$9625_2 = \chi_{11}$	.	.	1	.	.	.	.	.	.	.	.
$10395_1 = \chi_{12}$	.	.	.	1	.	.	.	.	.	.	.
$10395_2 = \chi_{13}$	.	.	.	.	1	.	.	.	.	.	.
$37422_1 = \chi_{19}$	.	1	.	.	.	1	.	.	.	.	.
$91125_1 = \chi_{22}$	.	.	.	.	.	.	1	.	.	.	.
$91125_2 = \chi_{23}$	.	.	.	.	.	.	.	1	.	.	.
$462000_1 = \chi_{42}$	.	.	.	.	.	1	.	.	1	.	.
$467775_1 = \chi_{43}$	.	.	1	.	.	.	.	.	.	1	.
$1835008_1 = \chi_{54}$	.	.	.	.	.	.	.	.	.	1	1
$2004750_1 = \chi_{57}$	.	.	.	1	1	.	1	1	1	.	1

$$\begin{aligned} \varphi_1 &= 1_1 \\ \varphi_4 &= 274_1 \\ \varphi_{10} &= 9625_1 \\ \varphi_{11} &= 10395_1 \\ \varphi_{12} &= 10395_2 \\ \varphi_{18} &= 37148_1 \end{aligned}$$

$$\begin{aligned} \varphi_{21} &= 91125_1 \\ \varphi_{22} &= 91125_2 \\ \varphi_{39} &= 424852_1 \\ \varphi_{42} &= 458150_1 \\ \varphi_{51} &= 1376858_1 \end{aligned}$$