

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO



TIPO/CLASSE: **CPIII-40 RS**
FÁBRICA: **FMO - FÁBRICA DE MOGI DAS CRUZES - SP**
MÊS/ANO: **JUNHO/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO	RESIDUO	TRIOXIDO DE	RESISTÊNCIA À COMPRESSÃO			FINURA			EXPANSIB.	TEMPO DE PEGA		CONSIST. NORMAL
	FOGO (PF)	INSOLÚVEL (RI)	ENXÓFRE (SO3)	3 DIAS	7 DIAS	28 DIAS	BLAINE	#325	#200	A QUENTE	INÍCIO	FIM	
UNIDADE	(%)	(%)	(%)	(MPa)	(MPa)	(MPa)	(cm²/g)	(%)	(%)	(mm)	(min)	(min)	(%)
LIMITE NORMATIVO (ABNT NBR 16697:2018)	≤ 6,5	≤ 5,0	≤ 4,5	≥ 12,0	≥ 23,0	≥ 40,0	–	–	≤ 8,0	≤ 5	≥ 60	≤ 720	–
01/06/2026	3.54	1.80	1.58	23.2	34.7	50.0	4258	1.2	0.2	0.0	195	245	30.0
02/06/2026	4.34	1.60	1.47	23.4	35.2	50.8	4317	0.7	0.1	0.0	205	250	30.0
03/06/2026	3.78	1.20	1.65	23.4	35.2	50.8	4378	1.0	0.1	0.0	210	250	30.0
05/06/2026	4.31	1.70	1.61	23.2	34.4	49.8	4479	1.1	0.2	0.0	210	270	30.0
06/06/2026	4.87	1.80	1.75	23.3	35.1	50.4	4578	0.7	0.1	0.0	205	270	30.0
08/06/2026	4.57	1.80	1.65	23.5	35.4	50.9	4412	1.3	0.2	0.0	210	270	30.0
09/06/2026	4.41	1.90	1.65	23.2	35.6	51.8	4560	1.3	0.1	0.0	210	260	30.0
10/06/2026	4.38	1.90	1.60	23.1	35.0	51.3	4519	0.8	0.1	0.0	210	255	29.6
11/06/2026	4.45	1.70	1.82	23.1	35.0	51.3	4508	1.3	0.2	0.0	190	240	29.6
12/06/2026	4.41	2.00	1.82	23.5	36.0	51.7	4457	1.0	0.1	0.0	190	240	29.6
13/06/2026	4.53	2.10	1.78	23.3	36.2	51.6	4486	0.8	0.1	0.0	210	260	29.6
15/06/2026	4.50	1.60	1.68	23.3	35.3	50.0	4467	0.9	0.1	0.0	210	260	29.6
16/06/2026	4.01	1.50	1.75	23.1	35.0	49.6	4450	1.1	0.1	0.0	210	260	29.6
17/06/2026	3.94	1.40	1.54	23.7	34.9	50.4	4359	1.1	0.2	0.0	210	260	29.6
18/06/2026	3.74	1.60	1.51	23.7	34.9	50.4	4267	1.1	0.1	0.0	210	260	29.6
19/06/2026	4.34	2.00	1.72	23.3	36.0	51.3	4312	0.9	0.1	0.0	210	260	29.6
20/06/2026	3.79	1.70	1.65	23.7	35.9	51.1	4355	1.2	0.1	0.0	195	245	29.6
22/06/2026	3.55	1.40	1.61	23.3	35.6	52.0	4353	1.4	0.2	0.0	195	245	29.8
23/06/2026	4.06	1.90	1.61	23.3	35.3	51.9	4512	1.1	0.1	0.0	200	250	29.8
24/06/2026	3.74	1.70	1.54	23.2	36.1	50.3	4505	0.8	0.1	0.0	200	250	29.8
25/06/2026	3.79	1.80	1.75	23.2	36.1	50.3	4462	1.1	0.2	0.0	200	240	29.6
26/06/2026	4.12	1.80	1.47	23.5	34.7	49.9	4437	0.9	0.2	0.0	185	220	29.8
27/06/2026	4.02	2.00	1.68	23.5	34.7	49.9	4722	0.7	0.1	0.0	180	215	29.2
29/06/2026	4.02	1.90	1.68	23.3	34.5	50.1	4454	1.0	0.1	0.0	190	230	29.8
30/06/2026	3.98	1.80	1.71	23.4	35.7	49.3	4427	1.5	0.2	0.0	180	220	29.0
MÉDIA	4.13	1.74	1.65	23.3	35.3	50.7	4441	1.0	0.1	0.0	201	249	29.7
MÁXIMO	4.87	2.10	1.82	23.7	36.2	52.0	4722	1.5	0.2	0.0	210	270	30.0
MÍNIMO	3.54	1.20	1.47	23.1	34.4	49.3	4258	0.7	0.1	0.0	180	215	29.0

Richard de S. Souza

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TIPO/CLASSE: **CPIII-40 RS**
FÁBRICA: **FMO - FÁBRICA DE MOGI DAS CRUZES - SP**
MÊS/ANO: **JULHO/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO	RESIDUO	TRIOXIDO DE	RESISTÊNCIA À COMPRESSÃO			FINURA			EXPANSIB.	TEMPO DE PEGA		CONSIST. NORMAL
	FOGO (PF)	INSOLÚVEL (RI)	ENXÓFRE (SO3)	3 DIAS	7 DIAS	28 DIAS	BLAINE	#325	#200	A QUENTE	INÍCIO	FIM	
UNIDADE	(%)	(%)	(%)	(MPa)	(MPa)	(MPa)	(cm²/g)	(%)	(%)	(mm)	(min)	(min)	(%)
LIMITE NORMATIVO (ABNT NBR 16697:2018)	≤ 6,5	≤ 5,0	≤ 4,5	≥ 12,0	≥ 23,0	≥ 40,0	–	–	≤ 8,0	≤ 5	≥ 60	≤ 720	–
01/07/2026	3.85	1.80	1.65	23.1	34.5	49.9	4280	1.1	0.2	0.0	180	220	29.0
02/07/2026	3.76	1.60	1.71	23.1	34.5	49.9	4332	1.3	0.2	0.0	190	230	29.0
03/07/2026	3.78	1.90	1.65	23.8	35.4	49.7	4321	1.1	0.1	0.0	185	220	29.0
04/07/2026	3.79	1.90	1.61	23.3	34.6	49.9	4308	1.4	0.1	0.0	190	230	29.2
06/07/2026	4.15	1.60	1.72	23.3	34.6	49.9	4318	1.4	0.2	0.0	190	240	29.2
07/07/2026	3.52	1.60	1.72	23.3	34.9	49.5	4308	1.4	0.2	0.0	200	250	29.2
08/07/2026	3.56	1.50	1.75	23.3	34.9	49.5	4391	1.0	0.1	0.0	180	225	29.2
10/07/2026	3.94	1.70	1.54	23.6	36.3	49.9	4397	1.1	0.1	0.0	185	220	29.4
11/07/2026	3.65	1.90	1.78	23.2	36.7	51.8	4497	0.8	0.1	0.0	185	220	29.8
13/07/2026	3.66	2.20	1.75	23.4	34.5	50.1	4405	1.1	0.1	0.0	180	240	29.6
14/07/2026	3.58	1.40	1.85	23.4	34.2	50.5	4371	0.8	0.1	0.0	200	250	29.2
15/07/2026	3.84	1.70	1.65	23.8	34.5	50.0	4403	1.0	0.1	0.0	180	245	29.4
16/07/2026	3.64	1.70	1.68	23.8	34.5	50.0	4340	1.1	0.1	0.0	180	230	29.4
17/07/2026	3.68	1.70	1.82	23.5	34.3	50.4	4323	1.4	0.1	0.0	185	220	29.4
18/07/2026	3.38	1.60	1.68	23.2	35.5	51.0	4300	1.2	0.2	0.0	190	240	29.4
20/07/2026	3.20	2.10	1.72	23.5	34.5	50.5	4333	1.1	0.2	0.0	190	240	29.4
21/07/2026	3.25	2.00	1.68	23.3	34.4	51.4	4238	1.0	0.1	0.0	180	230	29.6
22/07/2026	2.94	2.10	1.75	23.5	35.2	50.4	4229	1.2	0.2	0.0	185	235	29.2
23/07/2026	3.29	2.10	1.75	23.5	35.2	50.4	4283	1.1	0.2	0.0	180	220	29.2
24/07/2026	3.20	1.50	1.82	23.4	34.6	49.7	4227	1.1	0.2	0.0	185	225	29.4
25/07/2026	3.40	1.70	1.72	23.3	35.8	49.3	4160	1.2	0.2	0.0	190	230	29.4
27/07/2026	3.18	1.60	1.75	23.2	34.3	50.0	4224	1.1	0.1	0.0	180	220	29.4
28/07/2026	3.60	1.80	1.65	23.2	35.3		4261	1.2	0.1	0.0	190	230	29.4
29/07/2026	3.33	1.80	1.58	23.4	35.9		4241	1.0	0.1	0.0	190	235	29.2
30/07/2026	3.43	1.70	1.68	23.4	35.9		4331	1.1	0.1	0.0	185	220	29.2
31/07/2026	3.80	1.60	1.58	23.4	34.9		4439	1.0	0.1	0.0	185	230	29.4
MÉDIA	3.55	1.76	1.70	23.4	35.0	50.2	4318	1.1	0.1	0.0	186	231	29.3
MÁXIMO	4.15	2.20	1.85	23.8	36.7	51.8	4497	1.4	0.2	0.0	200	250	29.8
MÍNIMO	2.94	1.40	1.54	23.1	34.2	49.3	4160	0.8	0.1	0.0	180	220	29.0

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TIPO/CLASSE: **CPIII-40 RS**
FÁBRICA: **FMO - FÁBRICA DE MOGI DAS CRUZES - SP**
MÊS/ANO: **AGOSTO/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO FOGO (PF)	RESIDUO INSOLÚVEL (RI)	TRIOXIDO DE ENXÓFRE (SO3)	RESISTÊNCIA À COMPRESSÃO			FINURA			EXPANSIB. A QUENTE	TEMPO DE PEGA		CONSIST. NORMAL
				3 DIAS	7 DIAS	28 DIAS	BLAINE	#325	#200		INÍCIO	FIM	
UNIDADE	(%)	(%)	(%)	(MPa)	(MPa)	(MPa)	(cm²/g)	(%)	(%)	(mm)	(min)	(min)	(%)
LIMITE NORMATIVO (ABNT NBR 16697:2018)	≤ 6,5	≤ 5,0	≤ 4,5	≥ 12,0	≥ 23,0	≥ 40,0	–	–	≤ 8,0	≤ 5	≥ 60	≤ 720	–
01/08/2026	3.41	1.80	1.82	23.5	35.5		4493	0.9	0.2	0.0	190	240	29.8
03/08/2026	3.99	1.60	1.72	23.6	35.9		4400	1.1	0.2	0.0	180	230	29.6
04/08/2026	3.92	1.90	1.78	23.4	35.6		4420	1.0	0.1	0.0	180	230	29.6
05/08/2026	3.76	1.90	1.80	24.5	35.7		4525	1.4	0.2	0.0	180	230	29.6
06/08/2026	3.73	2.00	1.75	24.5	35.7		4470	1.4	0.1	0.0	180	225	29.6
07/08/2026	3.78	1.70	1.96	23.2	36.0		4568	1.1	0.1	0.0	190	235	29.6
08/08/2026	3.95	1.80	1.70	23.3	34.4		4627	1.0	0.2	0.0	180	220	29.6
10/08/2026	3.64	1.70	1.99	23.1	34.6		4526	1.0	0.2	0.0	190	230	29.6
11/08/2026	4.00	1.90	1.75	23.3	35.7		4689	1.4	0.2	0.0	200	250	29.8
12/08/2026	4.43	1.80	2.02	23.2	36.3		4668	1.8	0.2	0.0	185	230	29.6
13/08/2026	4.51	2.00	2.23	23.2	36.3		4829	1.4	0.2	0.0	180	220	29.6
14/08/2026	4.59	2.20	2.02	23.1	35.3		4833	1.4	0.1	0.0	190	255	29.6
15/08/2026	4.90	2.50	2.06	23.5	34.0		4872	1.6	0.2	0.0	195	240	29.6
17/08/2026	3.61	2.10	1.89	23.8	34.5		4867	1.6	0.2	0.0	180	220	29.6
18/08/2026	4.68	2.00	1.96	24.0			4859	1.5	0.2	0.0	180	220	29.4
19/08/2026	4.60	1.80	1.96	23.5			4816	1.8	0.2	0.0	180	220	29.6
20/08/2026	4.97	1.80	1.82	23.5			4772	1.7	0.2	0.0	190	230	29.6
21/08/2026	4.62	1.80	1.92				4672	1.6	0.1	0.0	185	225	29.6
22/08/2026	4.68	2.20	1.89				4772	1.8	0.2	0.0	200	240	29.4
24/08/2026		1.70					4770	1.4	0.1		190	230	29.6
MÉDIA	4.20	1.91	1.90	23.5	35.4		4672	1.4	0.2	0.0	186	231	29.6
MÁXIMO	4.97	2.50	2.23	24.5	36.3		4872	1.8	0.2	0.0	200	255	29.8
MÍNIMO	3.41	1.60	1.70	23.1	34.0		4400	0.9	0.1	0.0	180	220	29.4

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