

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO



TIPO/CLASSE: **CPIII-40 RS ENSACADO**
 FÁBRICA: **FVI - FÁBRICA DE VITÓRIA - ES**
 MÊS/ANO: **MARÇO/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO	RESÍDUO	TRIÓXIDO DE	RESISTÊNCIA À COMPRESSÃO			FINURA			EXPANSIB. A QUENTE	TEMPO DE PEGA		CONSIST. NORMAL
	FOGO (PF)	INSOLÚVEL (RI)	ENXÓFRE (SO ₃)	3 DIAS	7 DIAS	28 DIAS	BLAINE	#325	#200		INÍCIO	FIM	
UNIDADE	(%)	(%)	(%)	(MPa)	(MPa)	(MPa)	(cm ² /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	–
02/03/2026	1.02	0.83	0.49	21.1	31.4	47.2	4693	1.2	0.1	0.0	237	304	32.9
03/03/2026	1.15	0.87	0.42	20.5	32.0	47.8	4578	1.1	0.1	0.0	230	294	32.9
04/03/2026	1.02		0.57	19.8	32.6	47.3	4497	1.1	0.1	0.0	231	285	32.9
05/03/2026	0.67		0.88	21.7	32.0	47.2	4549	1.2	0.2	0.0	226	291	32.8
06/03/2026	0.95		0.88	22.9	32.8	47.6	4561	1.2	0.1	0.0	214	278	32.9
07/03/2026	0.75		1.02	23.0	34.2	47.4	4524	1.3	0.2	0.0	217	282	32.7
09/03/2026	0.47		1.32	25.5	34.0	49.3	4515	1.4	0.1	0.0	217	272	32.8
10/03/2026	0.15		1.41	22.5	34.5	49.7	4636	1.1	0.1	0.0	222	282	32.9
11/03/2026	0.66		0.64	23.7	35.5	48.2	4566	1.2	0.1	0.0	224	285	33.0
12/03/2026	0.69		0.83	22.8	35.8	47.9	4554	1.1	0.2	0.0	225	285	33.1
13/03/2026	1.22		1.01	23.8	34.7	48.3	4558	0.9	0.2	0.0	225	287	33.0
14/03/2026	0.88		0.76	23.7	32.9	47.6	4514	1.2	0.2	0.0	233	288	33.0
16/03/2026	1.09		0.69	22.3	33.4	49.3	4662	0.9	0.2	0.0	219	276	32.9
17/03/2026	0.90		0.74	22.6	35.3	50.0	4732	0.7	0.2	0.0	211	266	32.9
18/03/2026	1.04		0.95	22.0	35.3	49.3	4655	0.8	0.2	0.0	200	253	33.0
19/03/2026	1.31		0.64	20.6	33.0	48.3	4670	0.9	0.2	0.0	209	266	33.2
20/03/2026	0.61		1.01	22.5	32.5	47.7	4438	0.9	0.1	0.0	226	281	33.3
23/03/2026	0.67		1.13	21.8	32.7	46.6	4657	1.1	2.1	0.0	206	266	33.3
24/03/2026	0.45		1.18	21.5	31.7	46.5	4670	0.9	0.1	0.0	202	262	33.7
25/03/2026	0.35		1.21	23.4	31.7	45.6	4579	1.1	0.1	0.0	217	274	34.1
26/03/2026	0.74		1.24	24.9	34.5	45.2	4553	0.9	0.1	0.0	192	245	34.2
27/03/2026	0.70		1.20	24.8	34.6	45.7	4596	0.9	0.1	0.0	210	270	34.3
28/03/2026	0.73		1.21	24.3	34.5	47.5	4557	1.2	0.2	0.0	224	288	34.3
30/03/2026	0.52		1.23	24.2	34.4	41.9	4571	1.3	0.2	0.0	233	295	34.0
31/03/2026	0.74		1.17	26.7	34.1	41.8	4561	1.4	0.2	0.0	223	279	33.8
MÉDIA	0.78	0.85	0.95	22.9	33.6	47.2	4586	1.1	0.2	0.0	219	278	33.3
DESVIO PADRÃO	0.28	0.03	0.28	1.6	1.3	2.0	70	0.2	0.4	0.0	11	14	0.5
MÍNIMO	0.15	0.83	0.42	19.8	31.4	41.8	4438	0.7	0.1	0.0	192	245	32.7
MÁXIMO	1.31	0.87	1.41	26.7	35.8	50.0	4732	1.4	2.1	0.0	237	304	34.3

Kênia Gomes Aires

Responsável Técnico
 KÊNIA GOMES AIRES
 CRQ: 21.3.00318 - V Região

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO



TIPO/CLASSE: **CPIII-40 RS ENSACADO**
 FÁBRICA: **FVI - FÁBRICA DE VITÓRIA - ES**
 MÊS/ANO: **ABRIL/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO	RESIDUO	TRIÓXIDO 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	-
01/04/2026	0.73	0.85	1.18	23.9	34.0	44.0	4540	1.2	0.2	0.0	224	279	33.8
02/04/2026	0.45	1.13	1.16	23.7	34.7	43.8	4622	1.2	0.2	0.0	221	286	33.8
06/04/2026	0.57	0.46	1.14	23.6	33.7	42.5	4658	1.2	0.1	0.0	226	291	33.8
07/04/2026	0.90	0.68	1.18	24.6	33.9	44.1	4646	0.9	0.2	0.0	226	291	33.8
08/04/2026	0.87	1.02	1.16	23.3	34.4	44.0	4720	1.1	0.2	0.0	220	286	34.2
09/04/2026	0.85	0.44	1.14	23.7	32.1	42.4	4884	1.2	0.2	0.0	216	279	34.4
10/04/2026	0.72	0.81	1.14	21.3	34.5	42.2	4916	0.9	0.1	0.0	232	296	34.4
11/04/2026	0.86	0.65	1.23	20.5	31.8	42.5	4830	0.9	0.1	0.0	236	298	34.4
13/04/2026	0.76	0.53	1.21	19.7	32.2	41.2	4795	1.4	0.1	0.0	236	296	33.7
14/04/2026	0.82	0.46	1.11	19.1	31.1	41.7	4799	1.1	0.2	0.0	243	313	33.7
15/04/2026	1.04	0.48	1.12	21.6	31.5	42.1	4802	1.2	0.2	0.0	238	303	33.6
16/04/2026	0.74	0.24	1.19	20.6	33.2	41.9	4752	1.1	0.2	0.0	232	298	33.7
17/04/2026	0.83	0.29	1.16	21.7	34.5	41.1	4812	1.0	0.2	0.0	223	282	33.6
20/04/2026	0.65	0.51	1.00	18.2	29.0	41.0	4802	1.2	0.2	0.0	206	266	33.9
22/04/2026	0.70	0.52	0.97	18.1	32.0	40.2	4733	0.9	0.2	0.0	220	284	34.3
23/04/2026	0.51	0.56	0.96	19.1		41.1	4700	1.1	0.1	0.0	199	258	34.3
24/04/2026	0.54	0.53	0.99	21.9	32.1	41.5	4872	1.0	0.1	0.0	225	288	34.1
25/04/2026	0.56	0.58	0.98	23.0	34.4	41.3	4563	0.9	0.1	0.0	225	290	34.2
27/04/2026		0.38		23.3	34.4	42.9	4676	1.1	0.2	0.0	208	268	34.4
28/04/2026	0.50	0.45	1.13	22.6	33.1	43.5	4683	1.1	0.1	0.0	225	289	34.3
29/04/2026	0.55		1.10	23.5	32.8	42.4	4697	1.0	0.1	0.0	198	265	34.4
30/04/2026	0.68		1.12	22.8	32.7	41.5	4550	1.0	0.1	0.0	201	263	34.2
MÉDIA	0.71	0.58	1.11	21.8	33.0	42.2	4730	1.1	0.2	0.0	222	285	34.1
DESVIO PADRÃO	0.16	0.23	0.08	2.0	1.5	1.1	107	0.1	0.1	0.0	13	14	0.3
MÍNIMO	0.45	0.24	0.96	18.1	29.0	40.2	4540	0.9	0.1	0.0	198	258	33.6
MÁXIMO	1.04	1.13	1.23	24.6	34.7	44.1	4916	1.4	0.2	0.0	243	313	34.4

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TIPO/CLASSE: **CPIII-40 RS ENSACADO**
 FÁBRICA: **FVI - FÁBRICA DE VITÓRIA - ES**
 MÊS/ANO: **MAIO/2026**



ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO	RESIDUO	TRIÓXIDO 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	–
01/05/2026	0.73		1.22	22.3	30.2	42.0	4533	1.1	0.1	0.0	230	294	34.2
02/05/2026	0.72		1.11	21.6	31.9		4703	1.1	0.1	0.0	220	285	34.1
04/05/2026	0.83		1.21	18.7	30.9		4575	1.3	0.1	0.0	232	295	33.4
05/05/2026	0.70		1.16	19.6	30.5		4807	1.1	0.1	0.0	222	285	33.4
06/05/2026	0.81		1.08	18.1			4531	1.0	0.1	0.0	227	292	33.4
07/05/2026	0.72		1.06	18.5			4946	1.2	0.2	0.0	244	314	33.4
08/05/2026	0.65		1.11	21.4	30.7		4560	1.5	0.2	0.0	239	302	33.8
09/05/2026	0.66		1.09	20.7	30.2		4593	1.1	0.2	0.0	234	298	32.7
11/05/2026	0.73		0.81	19.6	29.0		4597	1.1	0.2	0.0	234	289	32.9
12/05/2026	0.59		1.02	18.1			4605	1.1	0.1	0.0	233	302	33.0
13/05/2026	0.64		1.10	19.2			4554	1.3	0.1	0.0	224	293	32.9
14/05/2026	0.77	0.61	1.14	18.1	29.3		4672	1.1	0.1	0.0	225	297	33.1
15/05/2026	0.88	0.56	1.15	19.3	29.3		4540	0.9	0.1	0.0	238	310	33.2
16/05/2026	0.84		1.08	19.6	29.8		4643	1.1	0.1	0.0	240	309	33.2
18/05/2026	0.57	0.58	1.10	18.5	29.3		4550	1.2	1.2	0.0	229	294	33.2
19/05/2026	0.44		1.11	18.2			4580	1.2	0.2	0.0	239	310	32.9
20/05/2026	0.88		1.01				4486	1.3	0.2	0.0	231	291	33.0
21/05/2026			1.04	19.1	30.7		4563	1.4	0.1	0.0	229	295	31.9
22/05/2026			1.12	18.1			4607	1.3	0.2	0.0	229	295	32.0
25/05/2026			1.07	18.9	31.8		4619	1.3	0.1	0.0	238	298	32.1
26/05/2026			1.11	17.8			4685	1.2	0.1	0.0	230	285	32.1
MÉDIA	0.72	0.58	1.09	19.3	30.3	42.0	4617	1.2	0.2	0.0	232	297	33.0
DESVIO PADRÃO	0.12	0.03	0.08	1.3	0.9		104	0.1	0.2	0.0	6	8	0.6
MÍNIMO	0.44	0.56	0.81	17.8	29.0	42.0	4486	0.9	0.1	0.0	220	285	31.9
MÁXIMO	0.88	0.61	1.22	22.3	31.9	42.0	4946	1.5	1.2	0.0	244	314	34.2

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