

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO



TIPO/CLASSE: **CPIII-40 RS GRANEL**



FÁBRICA: **FVI - FÁBRICA DE VITÓRIA - ES**

MÊS/ANO: **ABRIL/2026**

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO FOGO (PF)	RESÍDUO INSOLÚVEL (RI)	TRIOXÍDEO DE ENXÓFRE (SO ₃)	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)	(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	-
01/04/2026	1.57	0.73	1.82	26.8	35.5	48.7	4709	1.1	0.2	0.0	168	216	33.6
02/04/2026	1.55	0.74	1.93	25.0	35.3	47.4	4902	1.0	0.1	0.0	172	225	33.7
04/04/2026		0.40		25.7	34.8	49.9	4577	1.1	0.3	0.0	172	224	33.5
06/04/2026		0.54		25.4	34.9	48.5	4668	0.9	0.1	0.0	168	216	33.6
07/04/2026	1.79	0.55	1.74	24.5	34.2	49.2	4818	0.8	0.1	0.0	171	218	33.7
08/04/2026	1.94	0.61	1.75	24.1	35.1	49.0	4694	0.9	0.7	0.0	167	215	33.8
09/04/2026	1.63	0.69	1.85	24.0	35.6	47.3	4799	0.9	0.1	0.0	164	215	33.9
10/04/2026	1.51	0.71	1.91	25.4	35.2	47.6	4785	0.9	0.1	0.0	186	234	33.9
11/04/2026	1.81	0.72	1.86	25.0	34.4	47.8	4756	0.9	0.1	0.0	186	239	33.7
13/04/2026	1.62	0.56	1.99	23.3	33.9	46.9	4822	0.8	0.2	0.0	178	227	33.2
14/04/2026	1.71	0.75	1.89	24.8	34.9	49.2	4935	0.9	0.1	0.0	185	234	33.8
15/04/2026	1.74	0.68	1.96	24.2	35.5	48.6	4965	0.9	0.1	0.0	177	225	33.5
16/04/2026	1.23	0.67		23.7		48.3	4850	0.6	0.1	0.0	176	223	33.6
17/04/2026	1.35	0.67	1.86	25.4	32.0	48.8	4922	0.9	0.1	0.0	176	224	33.7
18/04/2026	1.80	0.83	1.53	26.5		49.2	4975	0.9	0.1	0.0	168	216	33.7
20/04/2026		0.79		22.4	32.0	46.4	4936	1.1	0.1	0.0	169	217	33.7
22/04/2026	1.32	0.30	1.53	23.3	34.8	46.0	4854	0.9	0.2	0.0	186	234	33.8
23/04/2026	1.28	0.30	1.58	25.6	34.7	46.6	4835	0.9	0.1	0.0	180	228	34.6
24/04/2026	1.52	0.72	1.72	23.3	32.1	45.6	4790	1.0	0.1	0.0	175	224	34.3
25/04/2026		0.64		24.9	33.4	47.6	4831	0.9	0.1	0.0	183	232	34.1
27/04/2026		0.55		24.4	34.7		4727	0.9	0.1	0.0	172	218	33.9
28/04/2026		0.69		25.1	36.7	47.1	4629	1.0	0.1	0.0	171	217	34.0
29/04/2026		0.66		25.8	36.0	48.3	4664	0.9	0.1	0.0	173	220	33.8
30/04/2026		0.87			36.5	46.2	4702	0.8	0.1	0.0	171	218	33.7
MÉDIA	1.59	0.64	1.79	24.7	34.7	47.8	4798	0.9	0.2	0.0	175	223	33.8
DESVIO PADRÃO	0.21	0.15	0.15	1.1	1.3	1.2	110	0.1	0.1	0.0	7	7	0.3
MÍNIMO	1.23	0.30	1.53	22.4	32.0	45.6	4577	0.6	0.1	0.0	164	215	33.2
MÁXIMO	1.94	0.87	1.99	26.8	36.7	49.9	4975	1.1	0.7	0.0	186	239	34.6

Kênia Gomes Aires

Responsável Técnico
KÊNIA GOMES AIRES
CRQ: 21.3.00318 - V Região

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO



TIPO/CLASSE: CIII-40 RS GRANEL



FÁBRICA: FVI - FÁBRICA DE VITÓRIA - ES

MÊS/ANO: MAIO/2026

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO FOGO (PF)	RESÍDUO INSOLÚVEL (RI)	TRIOXÍDEO DE ENXÓFRE (SO ₃)	RESISTÊNCIA À COMPRESSÃO			FINURA			EXPANSIBILIDADE A QUENTE	TEMPO DE PEGA		CONSISTÊNCIA NORMAL
				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	-
02/05/2026	1.54	0.89	1.94	24.9	35.3	48.9	4694	1.1	0.1	0.0	173	222	33.7
04/05/2026	1.09	0.86	1.98	25.4	35.4	47.7	4792	1.0	0.2	0.0	171	221	33.4
05/05/2026	1.72	0.82	1.97	23.2	34.7	48.3	4648	1.0	0.1	0.0	176	231	33.4
06/05/2026	1.66	0.70	1.95	23.8	35.7	48.5	4804	1.1	0.1	0.0	170	221	33.3
07/05/2026	1.42	0.74	2.12	24.1	33.3	48.9	4760	1.2	0.3	0.0	177	229	33.4
08/05/2026	1.76	0.76	1.91	24.2	33.4	48.1	4684	1.0	0.1	0.0	171	222	33.0
09/05/2026	1.52	0.86	1.98	24.9	32.9	47.8	4692	0.9	0.1	0.0	173	223	32.9
11/05/2026	1.67	1.17	1.74	22.9	32.3	46.2	4794	1.4	0.3	0.0	170	219	32.8
12/05/2026	1.48	1.37	1.68	23.8	31.5	45.2	4656	0.8	0.1	0.0	176	231	33.0
13/05/2026	1.86	1.03	1.85	22.7	31.1	46.5	4609	1.0	0.2	0.0	180	237	32.9
14/05/2026	1.68	0.49	1.66	22.9	30.9		4821	0.9	0.2	0.0	182	237	32.9
15/05/2026	1.74		1.81	22.4	32.1	45.0	4768	0.9	0.1	0.0	168	217	32.9
16/05/2026	1.69	1.35	1.76	23.6	32.8	45.5	4785	1.0	0.1	0.0	167	218	32.9
18/05/2026	1.74	0.67	1.90	24.7	34.3	44.8	4793	0.7	0.1	0.0	180	232	32.9
19/05/2026	1.50		1.83	22.6	31.1	46.5	4648	1.0	0.1	0.0	167	212	31.5
20/05/2026	1.80	0.90	1.80	23.2	30.4	47.2	4591	1.0	0.2	0.0	180	230	31.5
21/05/2026	2.21	0.64	1.82	22.4	32.1	45.4	4774	1.2	0.1	0.0	171	228	31.3
22/05/2026	1.96	0.73	1.85	23.1	31.8	47.5	4750	1.2	0.1	0.0	178	227	31.4
23/05/2026	2.18	0.69	1.82	23.3	29.6	46.9	4754	1.2	0.1	0.0	181	232	31.3
25/05/2026	1.56	0.70	1.82	25.6		47.2	4735	1.1	0.1	0.0	172	219	31.4
26/05/2026	2.08	0.59	1.77	22.1	30.3	47.4	4651	1.2	0.1	0.0	174	228	31.3
27/05/2026	2.12	0.63	1.85	25.5			4674	1.2	0.2	0.0	171	225	31.3
28/05/2026	2.45	0.65	1.65	22.1	32.1		4693	1.3	0.2	0.0	180	220	31.2
29/05/2026	1.80	0.67	1.77	21.5	31.0	45.0	4949	1.1	0.1	0.0	165	215	31.2
30/05/2026	1.45	0.80	1.62	22.1	30.8	45.0	4944	1.3	0.2	0.0	190	235	31.2
MÉDIA	1.75	0.81	1.83	23.5	32.4	46.8	4739	1.1	0.1	0.0	175	225	43.6
DESVIO PADRÃO	0.30	0.23	0.12	1.2	1.8	1.4	90	0.2	0.1	0.0	6	7	56.1
MÍNIMO	1.09	0.49	1.62	21.5	29.6	44.8	4591	0.7	0.1	0.0	165	212	31.2
MÁXIMO	2.45	1.37	2.12	25.6	35.7	48.9	4949	1.4	0.3	0.0	190	237	31.3

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TIPO/CLASSE: CIII-40 RS GRANEL



FÁBRICA: FVI - FÁBRICA DE VITÓRIA - ES

MÊS/ANO: JUNHO/2026

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIOS	PERDA AO FOGO (PF) (%)	RESIDUO INSOLÚVEL (RI) (%)	TRIOXIDO DE ENXÓFRE (SO3) (%)	RESISTÊNCIA À COMPRESSÃO (MPa)			FINURA (cm²/g)			EXPANSIB. A QUENTE (mm)	TEMPO DE PEGA (min)		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	-
02/06/2026	1.17	0.67	1.85	23.6	30.0		4857	1.0	0.2	0.0	170	225	31.2
03/06/2026	1.60	0.43	1.81	21.8	32.5		4667	1.0	0.2	0.0	180	230	32.0
04/06/2026	1.72	0.91	1.78	23.6	32.4		4751	1.0	0.1	0.0	175	215	31.8
05/06/2026	1.67	0.82	1.74	22.1	32.3		4886	1.1	0.1	0.0	175	220	31.6
06/06/2026	2.06	0.86	1.66	23.5	30.4		4674	1.2	0.2	0.0	185	240	31.8
08/06/2026	1.64	0.90	1.75	22.3	31.2		4728	1.1	0.2	0.0	180	220	31.7
09/06/2026	1.53	0.79	1.69	21.6	32.3		4755	1.0	0.1	0.0	170	215	31.5
10/06/2026	1.85	0.81	1.69	21.6	32.7		4705	1.0	0.1	0.0	180	215	31.8
12/06/2026	1.66		1.69	21.6	33.2		4715	0.9	0.2	0.0	185	230	31.7
15/06/2026	1.87		1.76	22.0	30.6		4807	1.1	0.1	0.0	175	225	32.4
16/06/2026	1.87		1.69	21.5	32.2		4723	1.0	0.1	0.0	190	240	32.5
18/06/2026	1.91		1.71	21.4			4711	1.0	0.2	0.0	180	240	32.4
19/06/2026	1.80		1.74	22.5	32.4		4730	1.0	0.2	0.0	185	235	32.4
20/06/2026	1.65		1.71	23.0	32.5		4836	1.1	0.2	0.0	185	230	32.4
22/06/2026	1.49		1.75	23.5			4722	1.3	0.2	0.0	185	230	32.4
24/06/2026	1.56		1.82				4780	1.0	0.2	0.0	170	225	32.3
25/06/2026	1.76		1.74	22.5			4773	0.8	0.2	0.0	175	230	32.4
MÉDIA	1.69	0.77	1.74	22.4	31.9		4754	1.0	0.2	0.0	179	227	32.0
DESVIO PADRÃO	0.20	0.16	0.05	0.8	1.0		62	0.1	0.1	0.0	6	9	0.4
MÍNIMO	1.17	0.43	1.66	21.4	30.0		4667	0.8	0.1	0.0	170	215	31.2
MÁXIMO	2.06	0.91	1.85	23.6	33.2		4886	1.3	0.2	0.0	190	240	32.5

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