

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO

TIPO/CLASSE: **CPII-F 32 RS**
 FÁBRICA: **FBA - FÁBRICA DE BARAUNAS - RN**
 MÊS/ANO: **MARÇO/2026**

FL-AGLO-LAB-002_R03

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIO	PERDA AO FOGO (PF)	RESÍDUO INSOLÚVEL (RI)	TRIÓXIDO DE ENXOFRE (SO3)	RESISTÊNCIA A 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)	≤ 12,5	≤ 7,5	≤ 4,5	≥ 10,0	≥ 20,0	≥ 32,0	-	-	≤ 12,0	≤ 5	≥ 60	≤ 600	-
01/03/2026	10,95	1,30	3,37	19,0	27,0	36,5	4720	7,3	0,3	1,0	150	190	26,0
02/03/2026	10,68	1,30	3,43	18,0	27,0	36,0	4720	7,1	0,3	1,0	150	190	26,0
03/03/2026	10,38	1,30	3,46	18,0	27,0	36,0	4975	7,2	0,3	1,0	150	190	26,0
04/03/2026	12,24	1,65	3,24	18,0	27,0	36,0	5320	4,4	0,3	1,0	150	190	26,0
05/03/2026	12,08	1,70	3,25	17,5	26,5	36,0	5230	4,5	0,3	1,0	150	190	26,0
06/03/2026	11,70	1,50	3,32	17,5	26,5	36,0	5249	5,0	0,3	1,0	150	190	26,0
07/03/2026	12,10	1,80	3,26	17,5	26,0	36,0	5495	5,2	0,3	1,0	150	190	26,0
08/03/2026	12,40	1,80	3,26	18,0	27,0	36,0	5641	5,6	0,3	1,0	150	190	26,0
09/03/2026	11,90	1,50	3,30	18,0	27,0	38,0	5660	5,0	0,3	1,0	150	190	26,0
10/03/2026	11,80	1,50	3,30	19,5	28,0	38,0	5680	5,1	0,3	1,0	150	190	26,0
11/03/2026	12,20	1,60	3,30	19,5	28,0	38,0	5320	5,7	0,3	1,0	150	190	26,0
12/03/2026	11,70	1,60	3,30	19,5	28,0	38,0	5255	6,5	0,3	1,0	150	190	26,0
13/03/2026	11,92	2,00	3,20	19,0	28,0	35,0	5200	6,7	0,3	1,0	150	190	26,0
14/03/2026	12,15	1,19	3,40	19,0	28,0	35,0	5235	7,2	0,3	1,0	150	190	26,0
15/03/2026	11,29	2,14	3,30	19,0	28,0	35,0	5360	7,1	0,3	1,0	150	190	26,0
16/03/2026	11,48	2,10	3,50	18,5	26,0	35,0	5380	7,0	0,3	1,0	150	190	26,0
17/03/2026	12,35	2,10	3,40	18,5	26,0	36,0	5560	7,0	0,3	1,0	150	190	26,0
18/03/2026	12,50	2,20	3,60	18,5	26,0	36,0	5270	7,0	0,3	1,0	150	190	26,0
19/03/2026	12,32	2,20	3,55	18,0	26,0	35,0	5170	6,8	0,3	1,0	150	190	26,0
20/03/2026	12,36	2,20	3,55	18,0	24,0	35,0	5350	6,2	0,3	1,0	150	190	26,0
21/03/2026	12,50	2,20	3,56	18,0	24,0	35,0	5490	6,2	0,3	1,0	150	190	26,0
22/03/2026	12,50	2,00	3,50	18,0	24,0	35,0	5260	6,1	0,3	1,0	150	190	26,0
23/03/2026	11,39	1,90	3,51	18,1	24,0	34,0	4960	6,1	0,3	1,0	150	190	26,0
24/03/2026	11,58	1,90	3,45	18,1	24,0	34,0	5120	6,1	0,3	1,0	150	190	26,0
25/03/2026	12,50	1,90	3,55	18,1	24,0	34,0	5100	6,1	0,3	1,0	150	190	26,0
26/03/2026	12,50	1,90	3,56	18,1	24,0	33,0	5125	6,0	0,3	1,0	150	190	26,0
27/03/2026	12,50	2,00	3,49	17,0	24,0	34,0	5090	5,9	0,3	1,0	150	190	26,0
28/03/2026	12,41	2,14	3,53	17,0	24,0	34,0	5105	5,6	0,3	1,0	150	190	26,0
29/03/2026	12,24	2,24	3,58	17,0	24,0	34,0	5080	5,7	0,3	1,0	150	190	26,0
30/03/2026	12,10	2,25	3,46	17,0	24,0	34,0	5140	5,9	0,3	1,0	150	190	26,0
31/03/2026	12,15	2,25	3,64	17,0	24,0	34,5	5230	6,3	0,3	1,0	150	190	26,0
MÉDIA	11,96	1,85	3,42	18,1	25,8	35,4	5242	6,1	0,3	1,0	150	190	26,0
DESVIO PADRÃO	0,56	0,33	0,13	0,75	1,61	1,33	233,87	0,82	0,00	0,00	0,00	0,00	0,00
MÍNIMO	10,38	1,19	3,20	17,0	24,0	33,0	4720	4,4	0,3	1,0	150	190	26,0
MÁXIMO	12,50	2,25	3,64	19,5	28,0	38,0	5680	7,3	0,3	1,0	150	190	26,0



Responsável Técnico
 YURI GALILLEU SILVA COSTA
 CRQ: 153000720 - XV Região

CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO

TIPO/CLASSE: **CPII-F 32 RS**
 FÁBRICA: **FBA - FÁBRICA DE BARAUNAS - RN**
 MÊS/ANO: **ABRIL/2026**

FL-AGLO-LAB-002_R03

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIO	PERDA AO FOGO (PF)	RESÍDUO INSOLÚVEL (RI)	TRIÓXIDO DE ENXOFRE (SO3)	RESISTÊNCIA A 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)	≤ 12,5	≤ 7,5	≤ 4,5	≥ 10,0	≥ 20,0	≥ 32,0	-	-	≤ 12,0	≤ 5	≥ 60	≤ 600	-
01/04/2026	11,55	1,37	3,51	22,5	27,0	38,0	5125	4,8	0,3	1,0	150	190	26,0
02/04/2026	12,16	1,30	3,71	20,0	27,4	38,0	5340	4,7	0,3	1,0	150	190	26,0
03/04/2026	12,32	1,33	3,64	20,0	27,4	38,0	5210	4,8	0,3	1,0	150	190	26,0
04/04/2026	12,20	1,28	3,50	20,0	27,0	37,0	5300	5,0	0,3	1,0	150	190	26,0
05/04/2026	12,50	1,30	3,44	20,0	27,0	37,0	5280	4,7	0,3	1,0	150	190	26,0
06/04/2026	12,50	1,38	3,69	19,0	27,0	37,0	5500	4,1	0,3	1,0	150	190	26,0
07/04/2026	12,28	1,33	3,81	19,0	27,0	37,0	5207	5,0	0,3	1,0	150	190	26,0
08/04/2026	12,47	1,36	3,76	19,0	26,3	36,0	5204	5,5	0,3	1,0	150	190	26,0
09/04/2026	12,38	1,35	3,78	19,0	26,3	36,0	5264	5,1	0,3	1,0	150	190	26,0
10/04/2026	12,19	2,20	3,82	20,0	27,0		5210	4,9	0,3	1,0	150	190	26,0
11/04/2026	11,88	2,23	3,75	20,0	27,0		5220	4,9	0,3	1,0	150	190	26,0
12/04/2026	11,40	2,21	3,69	20,0	27,0		4890	4,5	0,3	1,0	150	190	26,0
13/04/2026	11,10	2,18	3,24	20,0	27,0		5067	4,9	0,3	1,0	160	210	26,1
14/04/2026	12,20	2,20	3,45	19,6	28,0		5320	4,6	0,3	1,0	160	210	26,1
15/04/2026	12,50	2,17	3,36	19,6	28,0		5235	4,7	0,3	1,0	160	210	26,1
16/04/2026	12,30	2,19	3,70	19,6	28,0		5180	4,9	0,3	1,0	160	210	26,1
17/04/2026	12,20	2,19	3,64	20,0	28,0		5232	4,7	0,3	1,0	160	210	26,1
18/04/2026	12,50	2,22	3,48	20,0	28,0		5365	4,7	0,3	1,0	160	210	26,1
19/04/2026	12,00	2,18	3,40	20,0	28,0		5180	5,3	0,3	1,0	160	210	26,1
20/04/2026	12,33	2,23	3,46	19,0	28,0		5340	4,7	0,3	1,0	160	210	26,1
21/04/2026	12,50	2,19	3,36	19,0	28,0		5357	4,9	0,3	1,0	160	210	26,1
22/04/2026	12,30	2,22	3,30	19,0	27,0		5300	5,0	0,3	1,0	160	210	26,1
23/04/2026	11,14	2,20	3,47	19,5	26,0		5210	5,0	0,3	1,0	160	210	26,1
24/04/2026	12,50	2,18	3,50	19,5	26,0		5340	5,3	0,3	1,0	160	210	26,1
25/04/2026	12,50	2,15	3,46	19,5	26,0		5390	4,8	0,3	1,0	160	210	26,1
26/04/2026	12,45	2,20	3,54	19,0	26,0		5550	6,6	0,3	1,0	160	210	26,1
27/04/2026	12,50	2,10	3,58	19,8	26,0		5140	5,0	0,3	1,0	160	210	26,1
28/04/2026	12,05	2,13	3,50	19,8	28,0		5228	4,7	0,3	1,0	160	210	26,1
29/04/2026	12,09	2,14	3,42	19,0	28,0		5174	4,9	0,3	1,0	160	210	26,1
30/04/2026	12,44	2,15	3,50	19,0	28,0		5100	5,0	0,3	1,0	160	210	26,1
MÉDIA	12,18	1,93	3,55	19,6	27,2	37,1	5249	4,9	0,3	1,0	156	202	26,1
DESVIO PADRÃO	0,40	0,40	0,16	0,69	0,75	0,78	127,52	0,41	0,00	0,00	4,98	9,97	0,05
MÍNIMO	11,10	1,28	3,24	19,0	26,0	36,0	4890	4,1	0,3	1,0	150	190	26,0
MÁXIMO	12,50	2,23	3,82	22,5	28,0	38,0	5550	6,6	0,3	1,0	160	210	26,1



Responsável Técnico
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CERTIFICADO DE CONTROLE DA QUALIDADE DO CIMENTO

TIPO/CLASSE: **CPII-F 32 RS**
FÁBRICA: **FBA - FÁBRICA DE BARAUNAS - RN**
MÊS/ANO: **MAIO/2026**



FL-AGLO-LAB-002_R03

ENSAIOS QUÍMICOS				ENSAIOS FÍSICOS E MECÂNICOS									
ENSAIO	PERDA AO FOGO (PF)	RESÍDUO INSOLÚVEL (RI)	TRIÓXIDO DE ENXOFRE (SO3)	RESISTÊNCIA A 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)	≤ 12,5	≤ 7,5	≤ 4,5	≥ 10,0	≥ 20,0	≥ 32,0	-	-	≤ 12,0	≤ 5	≥ 60	≤ 600	-
01/05/2026	12,30	2,10	3,42	19,0	28,0		5314	5,0	0,3	1,0	160	210	26,1
02/05/2026	12,00	2,22	3,50	19,0	28,0		5300	4,9	0,3	1,0	160	210	26,1
03/05/2026	12,20	2,23	3,45	19,0	28,0		5280	5,0	0,3	1,0	160	210	26,1
04/05/2026	12,22	2,20	3,52	19,0			5360	4,9	0,3	1,0	160	210	26,1
05/05/2026	11,05	2,17	3,55	19,0			5080	4,8	0,3	1,0	160	210	26,1
06/05/2026	11,40	2,10	3,51	18,0			4915	5,4	0,3	1,0	160	210	26,1
07/05/2026	11,70	2,05	3,57				4870	5,2	0,3	1,0	160	210	26,1
08/05/2026	12,33	1,10	3,49				5140	5,3	0,3	1,0	160	210	26,1
09/05/2026	12,30		3,49				5043	4,8	0,3	1,0	160	210	26,1
10/05/2026	12,48		3,46				5074	4,8	0,3	1,0	160	210	26,1
11/05/2026	12,50		3,44				5190	4,2	0,3	1,0	160	210	26,1
12/05/2026													
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29/05/2026													
30/05/2026													
31/05/2026													
MÉDIA	12,04	2,02	3,49	18,8	28,0	#DIV/0!	5142	4,9	0,3	1,0	160	210	26,1
DESVIO PADRÃO	0,47	0,38	0,05	0,41	0,00	#DIV/0!	163,46	0,32	0,00	0,00	0,00	0,00	0,00
MÍNIMO	11,05	1,10	3,42	18,0	28,0	0,0	4870	4,2	0,3	1,0	160	210	26,1
MÁXIMO	12,50	2,23	3,57	19,0	28,0	0,0	5360	5,4	0,3	1,0	160	210	26,1

Responsável Técnico
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