

CERTIFICADO DA QUALIDADE

ENSAIOS QUÍMICOS E FÍSICOS DO CIMENTO CPV ARI

Dez/2025

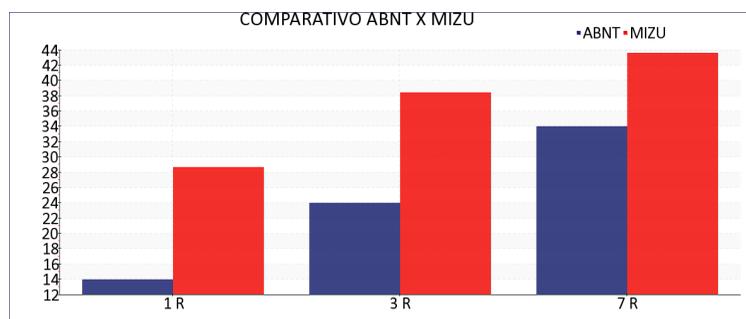
DATA	COMPOSIÇÃO QUÍMICA			RESISTÊNCIA A COMPRESSÃO				FINURA				EXP.	PEGA		CONSIST. NORMAL
	PF	RI	SO3	1 DIA	3 DIAS	7 DIA	28 DIAS	MASSA ESPECÍFICA	BLAINE	#P325	#200	QUENTE	INICIO	FIM	
	<6,5	<5,0	<4,5	>14,0	>24,0	>34,0		g/cm ³	cm ² /g	%	%	mm	>60	<600	
	%	%	%	MPa	MPa	MPa	MPa						min	min	%
02/12/2025	4.06	0.70	3.79	27.2	38.3	44.0	47.4	3.10	4818	0.6	0.1	0.0	126	176	32.8
03/12/2025	3.79	0.70	3.97	28.4	38.6	44.2	50.2	3.10	4898	0.7	0.1	0.0	114	151	32.9
04/12/2025	3.23	0.88	4.22	28.7	38.7	44.4	51.4	3.10	4819	0.5	0.1	0.0	123	154	32.2
05/12/2025	4.40	0.92	4.14	29.9	39.7	43.3	51.1	3.10	5090	0.6	0.0	0.0	116	159	32.1
08/12/2025	3.80	0.87	4.05	29.4	38.0	44.4	50.1	3.10	4726	0.6	0.1	0.0	117	152	32.1
09/12/2025	4.06	0.90	4.28	28.3	38.2	43.5	50.6	3.10	4856	0.6	0.1	0.0	112	155	32.7
09/12/2025	3.82	0.90	3.89	27.5	39.2	43.1	50.8	3.10	4798	0.4	0.1	0.0	125	162	33.4
10/12/2025	4.08	1.24	4.06	27.5	38.3	44.7	50.0	3.10	4778	0.7	0.1	0.0	128	175	32.7
11/12/2025	3.67	1.14	4.01	28.6	39.8	43.3	50.1	3.10	4795	0.7	0.1	0.0	131	172	32.9
12/12/2025	4.00	1.18	3.88	30.7	39.2	44.1	51.0	3.10	4773	0.4	0.0	0.0	131	174	32.8
16/12/2025	3.69	1.08	3.85	29.5	37.8	42.8	51.7	3.10	4780	0.4	0.1	0.0	102	140	33.6
17/12/2025	3.73	1.45	4.05	29.8	37.6	43.7	50.2	3.10	4764	0.4	0.1	0.0	113	152	33.5
19/12/2025	3.57	0.68	4.00	27.3	39.2	43.8	50.0	3.10	4786	0.5	0.1	0.0	113	149	33.5
20/12/2025	4.33	0.91	3.73	28.2	40.4	43.8	51.3	3.10	4784	0.5	0.1	0.0	112	147	33.6
22/12/2025	3.88	0.93	3.90	28.2	37.9	44.5	53.1	3.10	4726	0.4	0.1	0.0	116	150	33.6
23/12/2025	4.27	0.92	3.79	29.2	39.1	43.5	50.3	3.10	4898	0.7	0.1	0.0	115	161	33.6
24/12/2025	4.44	0.93	4.06	29.4	39.6	42.6	50.4	3.10	4856	0.6	0.1	0.0	109	150	33.6
27/12/2025	4.37	0.99	3.87	29.9	37.1	43.8	50.1	3.10	4822	0.7	0.1	0.0	117	154	33.6
27/12/2025	4.27	0.99	3.76	29.9	37.1	43.1	49.7	3.10	5028	0.7	0.1	0.0	132	179	35.1
29/12/2025	4.49	0.96	4.06	28.9	38.2	43.6	51.3	3.10	4960	0.8	0.1	0.0	119	159	33.7
31/12/2025	3.92	1.51	4.07	26.7	36.1	42.0	50.2	3.10	4948	0.5	0.1	0.0	111	151	33.7

Controle Estatístico

	PF	RI	SO3	R1	R3	R7	R28	MASSA ESPECÍFICA	BLAINE	#P325	#200	EXP.	INICIO	FIM	CONSIST.
Média	3.99	0.99	3.97	28.7	38.5	43.6	50.5	3.10	4843	0.6	0.1	0.0	118	158	33.2
Desvio	0.33	0.22	0.15	1.1	1.0	0.7	1.1	0.00	96	0.1	0.0	0.0	8	11	0.7
NBR 16697:2018	<6,5	<3,5	<4,5	>14,0	>24,0	>34,0	-	-	-	-	<6,0	<5,0	>60	<600	-

Comparativo ABNT x MIZU

	ABNT	MIZU
R1	14	28.7
R3	24	38.5
R7	34	43.6
R28	--	50.5



Kênia gomes aires

Responsável Técnico

Kênia Gomes Aires

CRQ: 21.3.00318

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Jan/2026

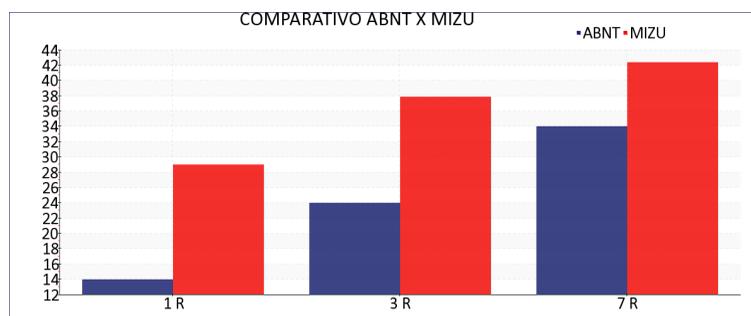
DATA	COMPOSIÇÃO QUÍMICA			RESISTÊNCIA A COMPRESSÃO				FINURA				EXP.	PEGA		CONSIST. NORMAL
	PF	RI	SO3	1 DIA	3 DIAS	7 DIA	28 DIAS	MASSA ESPECÍFICA	BLAINE	#P325	#200	QUENTE	INICIO	FIM	
	<6,5	<5,0	<4,5	>14,0	>24,0	>34,0		g/cm ³	cm ² /g	%	%	mm	>60	<600	
	%	%	%	MPa	MPa	MPa	MPa						min	min	%
02/01/2026	4.48	1.23	4.09	28.4	37.9	40.9	47.3	3.10	4904	0.7	0.1	0.0	113	147	33.7
04/01/2026	4.55	0.93	3.91	28.0	37.9	40.4	49.8	3.10	5179	0.7	0.1	0.0	115	151	33.8
05/01/2026	4.95	0.66	3.96	27.2	36.6	40.1	48.9	3.10	5096	0.7	0.1	0.0	101	137	33.6
07/01/2026	4.47	0.95	4.30	28.1	37.9	42.8	48.8	3.10	4812	0.6	0.1	0.0	106	140	33.7
08/01/2026	3.97	0.84	4.09	28.1	35.8	41.5	48.4	3.10	5083	0.7	0.1	0.0	104	147	33.7
09/01/2026	3.94	0.87	4.21	29.3	37.3	42.5	49.1	3.10	4938	0.4	0.1	0.0	108	143	33.7
13/01/2026	3.95	0.89	4.14	31.4	38.5	43.9	51.7	3.10	5007	0.8	0.1	0.0	107	152	33.7
13/01/2026	3.56	0.89	3.91	27.7	36.4	41.5	48.4	3.10	5058	0.6	0.1	0.0	117	166	33.9
15/01/2026	3.86	0.81	4.19	29.0	39.0	44.0	50.6	3.10	5006	0.8	0.1	0.0	115	149	33.5
16/01/2026	3.60	0.88	3.94	30.0	40.2	44.4	49.7	3.10	4919	0.8	0.1	0.0	126	158	33.4
17/01/2026	3.53	0.94	3.96	27.9	39.5	42.7	48.8	3.10	4830	0.8	0.1	0.0	124	151	33.4
20/01/2026	4.15	0.83	3.97	28.7	38.3	43.8	47.5	3.10	4985	0.7	0.1	0.0	137	159	33.6
22/01/2026	3.95	0.76	3.82	27.9	40.7	43.6	49.3	3.10	4627	0.8	0.1	0.0	137	177	33.0
26/01/2026	3.66	0.94	3.99	27.9	37.4	43.6		3.10	5028	0.2	0.1	0.0	126	172	32.6
27/01/2026	3.75	0.94	4.06	29.8	36.1	40.3	47.5	3.10	4652	1.2	0.1	0.0	106	147	32.4
28/01/2026	3.26	1.16	4.15	31.6	38.1	43.6	47.6	3.10	4658	0.9	0.1	0.0	100	137	31.6
29/01/2026	3.28	1.08	3.83	29.0	36.3		46.3	3.10	4883	0.8	0.1	0.0	99	132	31.7
30/01/2026	3.74	0.88	2.26	29.7	38.9	43.9	50.3	3.10	4660	1.2	0.1	0.0	96	124	31.7
31/01/2026	4.04	0.68	3.68	30.5	37.5	39.4	51.6	3.10	4705	1.2	0.1	0.0	109	136	31.6

Controle Estatístico

	R1	R3	R7	R28											
Média	3.93	0.90	3.92	29.0	37.9	42.4	49.0	3.10	4896	0.8	0.1	0.0	113	149	33.1
Desvio	0.44	0.14	0.43	1.3	1.4	1.6	1.5	0.00	171	0.3	0.0	0.0	12	14	0.9
NBR 16697:2018	<6,5	<3,5	<4,5	>14,0	>24,0	>34,0	-	-	-	-	<6,0	<5,0	>60	<600	-

Comparativo ABNT x MIZU

	ABNT	MIZU
R1	14	29.0
R3	24	37.9
R7	34	42.4
R28	--	49.0



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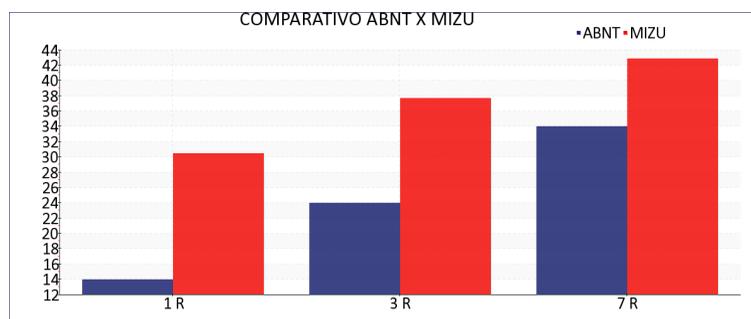
DATA	COMPOSIÇÃO QUÍMICA			RESISTÊNCIA A COMPRESSÃO				FINURA				EXP.	PEGA		CONSIST. NORMAL
	PF	RI	SO3	1 DIA	3 DIAS	7 DIA	28 DIAS	MASSA ESPECÍFICA	BLAINE	#P325	#200	QUENTE	INICIO	FIM	
	<6,5	<5,0	<4,5	>14,0	>24,0	>34,0		g/cm ³	cm ² /g	%	%	mm	>60	<600	
	%	%	%	MPa	MPa	MPa	MPa						min	min	%
02/02/2026	3.48	0.77	3.77	31.0	37.3	44.3		3.10	4806	0.6	0.1	0.0	107	139	32.3
03/02/2026	3.59	0.78	4.56	31.6	36.3	43.3		3.10	4909	0.6	0.1	0.0	117	155	32.3
04/02/2026	4.10	0.87	4.11	30.5	38.1	43.1		3.10	5073	0.6	0.1	0.0	94	120	32.5
05/02/2026	4.12	0.54	4.19	31.5	38.1	42.3		3.10	4859	0.7	0.1	0.0	97	124	32.5
06/02/2026	2.97	0.52	3.77	29.8		40.9		3.10	4698	0.7	0.1	0.0	127	156	32.5
07/02/2026	3.69	0.52	4.06	29.3	38.6			3.10	4845	0.6	0.1	0.0	108	138	32.7
09/02/2026	3.62	1.05	4.04	30.0	36.1			3.10	4919	0.7	0.1	0.0	92	117	32.6
10/02/2026	3.63	0.81	4.92	31.4	37.4			3.10	4772	0.7	0.1	0.0	114	141	32.7
11/02/2026	3.02	0.71	4.62	30.7	36.6	41.9		3.10	4883	0.6	0.1	0.0	99	129	33.1
12/02/2026	4.15	0.61	4.27	28.6		41.9		3.10	4824	0.9	0.1	0.0	91	119	33.1
13/02/2026	4.29	0.78	4.02	30.3	37.5	43.7		3.10	4773	0.7	0.1	0.0	99	128	32.2
17/02/2026	3.63		3.95	30.9	38.2	41.9		3.10	4747	0.8	0.1	0.0	108	135	32.6
18/02/2026	3.66	1.03	3.99	29.8	37.8	42.9		3.10	4767	0.7	0.1	0.0	95	118	32.5
19/02/2026	4.07	0.84	4.20	30.6	38.7	43.6		3.10	4763	0.8	0.1	0.0	95	121	32.5
20/02/2026	3.82	0.62	3.71	31.0	38.2	43.9		3.10	4726	0.8	0.2	0.0	96	124	32.6
21/02/2026	3.99	0.87	4.32	31.6	38.7	43.3		3.10	4959	0.8	0.1	0.0	104	128	32.7

Controle Estatístico

				R1	R3	R7	R28								
Média	3.74	0.75	4.16	30.5	37.7	42.9		3.10	4833	0.7	0.1	0.0	103	131	32.6
Desvio	0.38	0.17	0.33	0.9	0.9	1.0		0.00	98	0.1	0.0	0.0	10	12	0.3
NBR 16697:2018	<6,5	<3,5	<4,5	>14,0	>24,0	>34,0	-	-	-	-	<6,0	<5,0	>60	<600	-

Comparativo ABNT x MIZU

	ABNT	MIZU
R1	14	30.5
R3	24	37.7
R7	34	42.9
R28	--	



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