

## BRETT IPA #32

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- Gravity **14.3 BLG**
- ABV ---
- IBU **54**
- SRM **5.5**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.3 liter(s)**

### Mash information

- Mash efficiency **75.2 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.1 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **16.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **22.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bruntal - pilzneński	3.2 kg (68.1%)	81 %	4
Grain	Chateau - pszeniczny jasny	1.1 kg (23.4%)	83 %	4.5
Grain	Viking - Rye Malt	0.2 kg (4.3%)	81 %	8
Grain	Chateau - Crystal	0.1 kg (2.1%)	78 %	150
Grain	Bestmalz - Caramelpils	0.1 kg (2.1%)	75 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	5 g	60 min	15.5 %
Boil	Centennial	10 g	20 min	8.5 %
Boil	Citra	10 g	20 min	12 %
Boil	Mosaic	10 g	20 min	11.7 %
Aroma (end of boil)	Cascade	20 g	7 min	7.7 %
Aroma (end of boil)	Citra	15 g	7 min	12 %
Aroma (end of boil)	Centennial	10 g	7 min	8.5 %
Aroma (end of boil)	Galaxy	15 g	7 min	14.5 %
Dry Hop	Mosaic	20 g	5 day(s)	11.7 %

Dry Hop	Centennial	20 g	5 day(s)	8.5 %
Dry Hop	Galaxy	15 g	5 day(s)	14.5 %
Dry Hop	Cascade	20 g	5 day(s)	7.7 %
Dry Hop	Citra	5 g	5 day(s)	12 %
Dry Hop	Centennial	10 g	2 day(s)	8.5 %
Dry Hop	Galaxy	10 g	2 day(s)	14.5 %
Dry Hop	Cascade	10 g	2 day(s)	7.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Amalgamation Brett Super Blend	Ale	Liquid	400 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	6.5 g	Mash	---
Fining	irish moss	3 g	Boil	7 min
Water Agent	kwas mlekowy 80%	5 g	Mash	---

## Notes

- 1. zrobić starter drożdżowy 2stopniowy (2x6-7 dni) (1L+1,2L)
  - 2. planowana fermentacja: burzliwa ok. 26-30 dni, cicha ok. 7 dni
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