

## BRETT IPA v3 #44

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **54**
- SRM **5.1**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

### Mash information

- Mash efficiency **78.5 %**
- Liquor-to-grist ratio **3.7 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.4 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **74.5C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **75C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bestmalz - pilzneński	2.25 kg (41.7%)	80.5 %	4
Grain	Bruntal - pilzneński	1.25 kg (23.1%)	81 %	4
Grain	Weyermann - Pale Ale	0.1 kg (1.9%)	79 %	6.5
Grain	Bestmalz - pszeniczny	0.6 kg (11.1%)	82 %	4.5
Grain	Weyermann - pszeniczny	0.7 kg (13%)	82 %	4
Grain	Viking - Rye Malt	0.2 kg (3.7%)	81 %	8
Grain	Bestmalz - Caramelpils	0.2 kg (3.7%)	75 %	5
Grain	Chateau - Crystal	0.1 kg (1.9%)	78 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	7 g	60 min	15.5 %
Aroma (end of boil)	Columbus	26 g	20 min	12.5 %
Aroma (end of boil)	Centennial	30 g	15 min	9.4 %
Aroma (end of boil)	Palisade	51 g	5 min	6.1 %
Aroma (end of boil)	Galaxy	10 g	5 min	14.5 %

Dry Hop	Cascade	20 g	5 day(s)	7.1 %
Dry Hop	Mosaic	40 g	5 day(s)	12 %
Dry Hop	Citra	40 g	5 day(s)	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Amalgamation Brett Super Blend	Ale	Slant	150 ml	White Labs

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	5.5 g	Mash	---
Fining	irish moss	3 g	Boil	7 min
Water Agent	kwas mlekowy 80% [ml]	4.54 g	Mash	---
Water Agent	chlorek wapnia [ml]	3.43 g	Mash	---
Water Agent	sól epsom	2 g	Mash	---