

# Xmas BAle

- Gravity **15 BLG**
- ABV ---
- IBU **39**
- SRM **29.4**
- Style **Northern English Brown Ale**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.9 liter(s)**

## Steps

- Temp **68 C**, Time **90 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **76.9C**
- Add grains
- Keep mash **90 min** at **68C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Flagon	5 kg (71.4%)	80 %	6
Grain	Caramel/Crystal Malt - 40L	1 kg (14.3%)	73 %	90
Grain	Weyermann - Caraamber	0.2 kg (2.9%)	75 %	65
Grain	Weyermann - Carared	0.2 kg (2.9%)	74 %	45
Grain	Chocolate Malt (UK)	0.2 kg (2.9%)	72 %	1200
Grain	Biscuit Malt	0.4 kg (5.7%)	79 %	45

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Golding	50 g	60 min	5 %
Boil	Golding	50 g	30 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

## Extras

Type	Name	Amount	Use for	Time
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Spice	cynamon laska	34 g	Boil	10 min
Spice	kardamon	6 g	Boil	10 min
Spice	goździki	6 g	Boil	10 min
Spice	galka muszkatołowa	4 g	Boil	10 min
Spice	wanilia laska (1,5 szt.)	3 g	Boil	10 min
Spice	ziele angielskie	2 g	Boil	10 min
Spice	kolendra	9 g	Boil	10 min