

# English Bitter

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- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **31**
- SRM **17.3**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **26.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.4 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **22.4 liter(s)** of **76C** water or to achieve **32.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (90%)	80 %	5
Grain	Strzegom Karmel 600	0.5 kg (10%)	68 %	600

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	50 min	9.4 %
Aroma (end of boil)	Lublin (Lubelski)	15 g	15 min	5.7 %
Whirlpool	Lublin (Lubelski)	15 g	20 min	5.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

## Notes

- Słód karmelowy wrzucić na mashout  
*Oct 11, 2021, 1:09 PM*