

# 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*