

# SMASH Bitter

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **48**
- SRM **4.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

## Steps

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

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt Słód Pale Ale	5 kg (100%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hellertau Hersbrucker	100 g	60 min	4.1 %
Boil	Hellertau Hersbrucker	30 g	5 min	4.1 %

## Yeasts

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