

# 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  |