

# Summer Bitter

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **34**
- SRM **8.6**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **7.5 %**
- Size with trub loss **20.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **24.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **66 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.51 kg (80%)	80 %	5
Grain	Strzegom Pszeniczny	0.44 kg (10%)	81 %	6
Grain	Strzegom Karmel 150	0.44 kg (10%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	17 g	60 min	8.8 %
Boil	Marynka	10 g	20 min	8.8 %
Boil	Marynka	10 g	10 min	8.8 %
Aroma (end of boil)	Sybilla	25 g	10 min	6 %
Dry Hop	Sybilla	25 g	3 day(s)	6 %
Dry Hop	Marynka	13 g	3 day(s)	8.8 %

## Yeasts

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