

## Modern bitter

- Gravity **9 BLG**
- ABV **3.5 %**
- IBU **28**
- SRM **5**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **14.9 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **11.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **76C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (90.9%)	81 %	5
Grain	CRISP - Crystal Extra Light	0.2 kg (6.1%)	74 %	120
Grain	Weyermann - Carapils	0.1 kg (3%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	20 g	30 min	15.1 %
Boil	Mosaic	50 g	0 min	12.3 %
Boil	Fuggles	50 g	0 min	4.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	---