

# Better Bitter

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **13.6**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **3 %**
- Size with trub loss **41.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **50 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.8 liter(s)**
- Total mash volume **40.9 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **31.8 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **27.3 liter(s)** of **76C** water or to achieve **50 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	8 kg (87.9%)	79 %	6
Grain	Fawcett - Crystal	1 kg (11%)	70 %	160
Grain	Strzegom Czekoladowy ciemny	0.1 kg (1.1%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook PL	30 g	60 min	9.1 %
Boil	East Kent Goldings	50 g	15 min	5.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	5 g	Danstar

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips piwowarski	2 g	Mash	60 min