

# jasne z czekoladowym

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **25**
- SRM **8.1**

## Batch size

- Expected quantity of finished beer **58 liter(s)**
- Trub loss **0 %**
- Size with trub loss **58 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **70.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **33.9 liter(s)**
- Total mash volume **45.2 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **33.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **47.6 liter(s)** of **76C** water or to achieve **70.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	11 kg (97.3%)	90 %	4
Grain	karmelowy	0.3 kg (2.7%)	90 %	600

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	fuggles	25 g	55 min	14.1 %
Boil	lunga	30 g	30 min	9.6 %
Aroma (end of boil)	lubelski	35 g	5 min	2.6 %
Aroma (end of boil)	fuggles	35 g	5 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-04	Ale	Slant	300 ml	safale