

# Jasny czort

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **4.7**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **69 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **50 min** at **69C**
- Keep mash **10 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (80%)	85 %	4
Grain	Monachijski	1 kg (20%)	78 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	40 min	4 %
Boil	Marynka	30 g	10 min	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	25 g	Safale