

# harcerskie

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- Gravity **3.3 BLG**
- ABV **1.2 %**
- IBU **20**
- SRM **3.7**

## 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 **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **5.3 liter(s)**
- Total mash volume **6.8 liter(s)**

## Steps

- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **5.3 liter(s)** of strike water to **79.4C**
- Add grains
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **21.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	0.75 kg (50%)	80 %	4
Grain	Karmelowy Jasny 30EBC	0.75 kg (50%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	15 g	60 min	4 %
Boil	Lublin (Lubelski)	15 g	30 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	4 %

## Yeasts

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