

# Harcerskie

- Gravity **6.6 BLG**
- ABV ---
- IBU **22**
- SRM **9.8**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **8.8 liter(s)**
- Total mash volume **11.3 liter(s)**

## Steps

- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **8.8 liter(s)** of strike water to **77.1C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **21.5 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	1.5 kg (60%)	80 %	4
Grain	Strzegom pszeniczny	0.8 kg (32%)	81 %	6
Grain	Strzegom Karmel 300	0.2 kg (8%)	70 %	299

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	10 g	10 min	13.7 %
Boil	Citra	10 g	10 min	12 %
Boil	Summit	10 g	10 min	14 %
Boil	Citra	15 g	1 min	12 %
Boil	Admiral	15 g	1 min	13.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	80 ml	Safale