

# Polskie Stratosferyczne

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **24**
- SRM **6.4**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **35.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **44 C**, Time **30 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **30 min** at **44C**
- Keep mash **45 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **23.3 liter(s)** of **76C** water or to achieve **35.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.8 kg (46.7%)	80 %	5
Grain	Pszeniczny	1.2 kg (20%)	85 %	4
Grain	Abbey Malt Weyermann	1 kg (16.7%)	75 %	45
Grain	Strzegom Pilzneński	1 kg (16.7%)	80 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	10 %
Boil	Citra	10 g	20 min	12 %
Aroma (end of boil)	Simcoe	30 g	0 min	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
S-05	Ale	Dry	20 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	0.5 g	Boil	10 min