

# Niskoalkoholowe

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- Gravity **7.3 BLG**
- ABV **2.8 %**
- IBU **60**
- SRM **3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **4.2 liter(s)**
- Total mash volume **5.6 liter(s)**

## Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **4.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **9.9 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.15 kg (60.5%)	79 %	6
Grain	Pszeniczny	0.25 kg (13.2%)	85 %	4
Adjunct	płatki jęczmienne	0.25 kg (13.2%)	1 %	---
Adjunct	płatki żytnie	0.25 kg (13.2%)	1 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	30 min	13 %
Boil	Mosaic	15 g	15 min	10 %
Aroma (end of boil)	Citra	15 g	0 min	12 %
Dry Hop	Citra	50 g	3 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.4 g	Fermentis