

# Murzyn po kastracji

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **46**
- SRM **6.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **17.5 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (56.3%)	80 %	5
Grain	Strzegom Monachijski typ II	2 kg (28.2%)	79 %	22
Grain	Płatki owsiane	1 kg (14.1%)	85 %	3
płatki żytnie				
Grain	Acid Malt	0.1 kg (1.4%)	58.7 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	15 min	15.5 %
Aroma (end of boil)	Willamette	20 g	0 min	5 %
Dry Hop	Sterling	100 g	5 day(s)	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Herb	Nagietek	50 g	Boil	5 min

### Notes

- Do refermentacji zostanie dodany syrop z kwatów czarnego bzu, cytryny i limonki.  
*May 29, 2018, 10:46 PM*