

# Murzyńska Pipa

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- Gravity **15 BLG**
- ABV ---
- IBU **84**
- SRM **37.6**
- 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 **70 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.6 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.5 liter(s)** of strike water to **72.8C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **21.2 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	6 kg (82%)	81 %	4
Grain	Strzegom Karmel 150	0.12 kg (1.6%)	75 %	150
Grain	Carafa II	0.6 kg (8.2%)	70 %	812
Grain	Biscuit Malt	0.3 kg (4.1%)	79 %	45
Sugar	Brown Sugar, Dark	0.3 kg (4.1%)	100 %	99

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	10 g	45 min	15.5 %
Boil	Simcoe	15 g	15 min	13 %
Boil	Chinook	15 g	15 min	13 %
Aroma (end of boil)	Simcoe	15 g	5 min	13 %
Aroma (end of boil)	Chinook	15 g	5 min	13 %
Dry Hop	Simcoe	20 g	6 day(s)	13 %
Dry Hop	Chinook	20 g	6 day(s)	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	11 g	Safale