

# Na otwarcie MŚ 2018

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **51**
- SRM **6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.4 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	4 kg (58%)	85 %	7
Grain	Pilzneński	1.3 kg (18.8%)	81 %	4
Grain	Monachijski	0.7 kg (10.1%)	80 %	16
Grain	Carabelge	0.5 kg (7.2%)	80 %	30
Grain	Oats, Flaked	0.4 kg (5.8%)	80 %	2

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	25 g	60 min	14.4 %
Boil	Chinook	15 g	30 min	11.1 %
Boil	Azacca	15 g	15 min	11.8 %
Boil	Amarillo	15 g	15 min	9.3 %
Dry Hop	Azacca	15 g	8 day(s)	11.8 %
Dry Hop	Lublin (Lubelski)	25 g	8 day(s)	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM52 Amerykański Sen	Ale	Slant	100 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min