

## PITCH AND ROLL

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- Gravity **16.6 BLG**
- ABV ---
- IBU **56**
- SRM **20.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **15 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**

### Mash step by step

- Heat up **24 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (62.5%)	85 %	7
Grain	Wayermann - Karmelowy żytni	1 kg (12.5%)	75 %	150
Grain	Strzegom Monachijski typ I	1 kg (12.5%)	79 %	16
Grain	Pszeniczny	0.5 kg (6.3%)	85 %	4
Grain	Weyermann - Caraamber	0.5 kg (6.3%)	75 %	65

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	30 g	60 min	13.5 %
Boil	Citra	30 g	15 min	13.5 %
Boil	Citra	30 g	5 min	13.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	11 g	---