

# Maturzysta- Stout chmielony na zimno

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **13**
- SRM **27.7**
- Style **Dry Stout**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.42 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.1 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **10.2 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg (78%)	85 %	7
Grain	Carafa II	0.1 kg (2.4%)	70 %	812
Grain	Płatki jęczmienne	0.5 kg (12.2%)	85 %	3.5
Grain	Jęczmień palony	0.3 kg (7.3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	English Golding	15 g	60 min	4.8 %
Aroma (end of boil)	English Golding	15 g	10 min	4.8 %
Dry Hop	Falconers flight	30 g	7 day(s)	11.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Notes

- Carafa i jęczmień palony dodać po zacieraniu przed pogrzeniem do 76  
*Jan 29, 2018, 9:32 PM*