

# Czapka mikołaja

- Gravity **17.1 BLG**
- ABV ---
- IBU **34**
- SRM **46**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **8 %**
- Size with trub loss **23.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	5 kg (70.4%)	85 %	7
Grain	Strzegom Monachijski typ I	0.5 kg (7%)	79 %	16
Adjunct	Briess - Barley Flakes	0.5 kg (7%)	70 %	3
Grain	Strzegom Karmel 300	0.3 kg (4.2%)	70 %	299
Grain	viking malt czekoladowy	0.3 kg (4.2%)	68 %	400
Grain	Carafa II Special	0.3 kg (4.2%)	70 %	812
Grain	Jęczmień palony	0.2 kg (2.8%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	lunga	12 g	15 min	11 %
Boil	Marynka	3 g	15 min	10 %

## Yeasts

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

Type	Name	Amount	Use for	Time
Spice	Przyprawy - notatki	1 g	Boil	5 min

### Notes

- Przyprawy  
goździki - 4,5 sztuk  
cynamon - 10 cm  
skórka pomarańczy - 20g  
*Oct 11, 2016, 1:50 PM*