

# Hej Koleđa

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **36**
- SRM **16.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.1 liter(s)**
- Total mash volume **24.2 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **18.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (66.1%)	81 %	4
Grain	Oats, Flaked	0.8 kg (13.2%)	80 %	2
Grain	Strzegom Monachijski typ II	0.75 kg (12.4%)	79 %	22
Grain	special X	0.5 kg (8.3%)	75 %	300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	11 %
Boil	Lublin (Lubelski)	5 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM26 Belgijskie Pagórki	Ale	Slant	150 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	goździki	1 g	Boil	10 min

Spice	cynamon	1 g	Boil	10 min
Spice	anyż	1 g	Boil	10 min
Spice	kardamon	1 g	Boil	10 min
Spice	gałka muszkatałowa	1 g	Boil	10 min
Fining	whirflock	0.5 g	Boil	10 min
Water Agent	chlorek	4 g	Mash	1 min

## Notes

- 3/4 starteji gałki  
12 ziaren kardamonu  
5 ziaren anyżu  
laska cynamonu  
10 goździków  
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