

# Hefe próba xXx dunkel

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **11**
- SRM **14**
- Style **Dunkelweizen**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **29.9 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **24.5 liter(s)**

## Steps

- Temp **44 C**, Time **20 min**
- Temp **55 C**, Time **10 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **19.6 liter(s)** of strike water to **47C**
- Add grains
- Keep mash **20 min** at **44C**
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **72C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **29.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	2 kg (40.8%)	80 %	16
Grain	Pszeniczny	2.2 kg (44.9%)	85 %	4
Grain	Carafa II	0.2 kg (4.1%)	70 %	812
Grain	Płatki owsiane z łuską	0.5 kg (10.2%)	40 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau mittelfruh	25 g	60 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Slant	100 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
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Other	Łuska ryżowa sterylizowana	150 g	Mash	5 min
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