

# 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 |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|       |                               |       |      |       |
|-------|-------------------------------|-------|------|-------|
| Other | Łuska ryżowa<br>sterylizowana | 150 g | Mash | 5 min |
|-------|-------------------------------|-------|------|-------|