Dunkelweizen

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **16**
- SRM **17.3**
- Style **Dunkelweizen**

Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **3 %**
- Size with trub loss **36 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **43.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **30.6 liter(s)**
- Total mash volume **39.4 liter(s)**

Steps

- Temp **45 C**, Time **15 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **30.6 liter(s)** of strike water to **48.6C**
- Add grains
- Keep mash **15 min** at **45C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **21.7 liter(s)** of **76C** water or to achieve **43.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	3 kg *(34.3%)*	79 %	22
Grain	Pszeniczny	3.5 kg *(40%)*	85 %	4
Grain	Pilzneński	1 kg *(11.4%)*	81 %	4
Grain	Carahell	1 kg *(11.4%)*	77 %	26
Grain	Strzegom Barwiący	0.25 kg *(2.9%)*	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Tradition	50 g	45 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	1000 ml	Fermentum Mobile

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.