

# 70 Heldige Hilde

American Pale Ale (18 B)

**Type:** All Grain  
**Batch Size:** 45,00 l  
**Boil Size:** 33,00 l  
**Boil Time:** 90 min  
**End of Boil Vol:** 29,25 l  
**Final Bottling Vol:** 43,00 l  
**Fermentation:** TuneBrygget Ale

**Date:** 31 May 2017  
**Brewer:** TuneBrygget  
**Asst Brewer:**  
**Equipment:** Grainfather  
**Efficiency:** 90,00 %  
**Est Mash Efficiency:** 95,0 %  
**Taste Rating:** 30,0



**Taste Notes:**

## Ingredients

Amt	Name	Type	#	%/IBU
7,60 kg	Pilsner (2 Row) Bel (3,9 EBC)	Grain	1	84,4 %
0,50 kg	CaraClassic (120,0 EBC)	Grain	2	5,6 %
0,50 kg	CaraHell (25,0 EBC)	Grain	3	5,6 %
0,40 kg	Hvete (4,5 EBC)	Grain	4	4,4 %
20,00 g	Perle [8,00 %] - Boil 60,0 min	Hop	5	6,6 IBUs
65,00 g	Amarillo [9,20 %] - Boil 15,0 min	Hop	6	12,3 IBUs
10,00 g	Gjærnæring (Boil 10,0 mins)	Other	7	-
60,00 g	Chinook [13,00 %] - Boil 5,0 min	Hop	8	6,4 IBUs
35,00 g	Citra [12,00 %] - Boil 5,0 min	Hop	9	3,5 IBUs
45,00 g	Citra [12,00 %] - Dry Hop 10,0 Days	Hop	10	0,0 IBUs

## Gravity, Alcohol Content and Color

**Est Original Gravity:** 1,054 SG  
**Est Final Gravity:** 1,014 SG  
**Estimated Alcohol by Vol:** 5,3 %  
**Bitterness:** 28,8 IBUs  
**Est Color:** 13,6 EBC

**Measured Original Gravity:** 1,053 SG  
**Measured Final Gravity:** 1,010 SG  
**Actual Alcohol by Vol:** 5,6 %  
**Calories:** 494,4 kcal/l

## Mash Profile

**Mash Name:** TuneBrygget  
**Sparge Water:** -33,39 l  
**Sparge Temperature:** 78,0 C  
**Adjust Temp for Equipment:** TRUE  
**Est Mash PH:** 5,64  
**Measured Mash PH:** 5,20

**Total Grain Weight:** 9,00 kg  
**Grain Temperature:** 22,2 C  
**Tun Temperature:** 22,2 C  
**Target Mash PH:** 5,20  
**Mash Acid Addition:**  
**Sparge Acid Addition:**

## Mash Steps

Name	Description	Step Temperature	Step Time
Mesking	Add 52,64 l of water and heat to 67,0 C over 40 min	67,0 C	90 min
Utmesk	Add 29,76 l of water and heat to 78,0 C over 15 min	78,0 C	10 min

**Sparge:** Fly sparge with -33,39 l water at 78,0 C

**Mash Notes:**

## Carbonation and Storage

**Carbonation Type:** Bottle  
**Pressure/Weight:** 252,93 g  
**Keg/Bottling Temperature:** 21,1 C  
**Fermentation:** TuneBrygget Ale  
**Fermenter:**

**Volumes of CO2:** 2,3  
**Carbonation Est:** Bottle with 252,93 g  
Corn Sugar  
**Carbonation (from Meas Vol):** Bottle  
with 244,10 g Corn Sugar  
**Age for:** 30,00 days

**Storage Temperature:** 25,0 C

Notes

