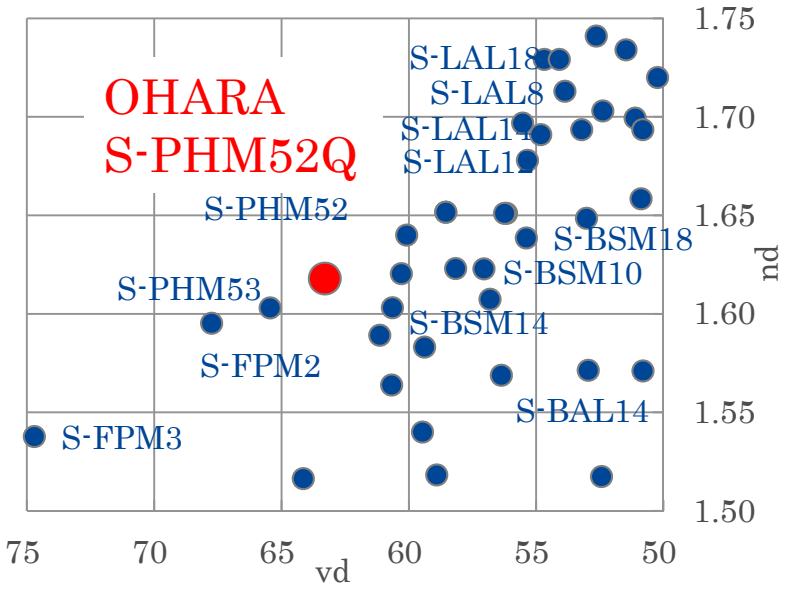
S-PHM52Q

New Glass

Improved processability and chemical durability desired in the PHM region.
S-PHM52Q has the same refractive index and abbe number as S-PHM52.

Characteristics

1. Acid resistance / RA(P): Class 4 → 3
   Abrasion / Aa: 468→313
2. dn/dT: Close to zero
3. Low specific gravity

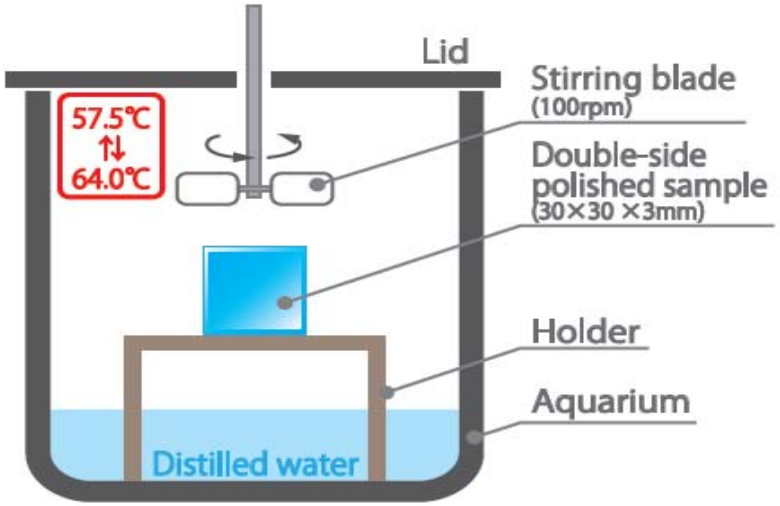


		S-PHM52Q	S-PHM52
Refractive index: nd		1.61800	1.61800
Abbe number: vd		63.32	63.33
Partial dispersion ratio θg, F		0.5426	0.5441
Deviation of Partial dispersion Δ θg, F		0.0036	0.0051
dn/dT(Dline 40～60℃)		-0.7	-3.6
Expansion coefficients α(10^{-7}/℃)	-30～70℃	88	101
	+100～300℃	103	120
Transformation Temp Tg(℃)		577	587
Yield point At(℃)		614	617
Coloring	$\lambda_{80}(\lambda_{70})$	365	370
	λ_5	325	325
Water resistance: RW(P)		1	1
Acid resistance: RA(P)		3	4
Wheathring resistance: W(S)		1	2
Acid SR		51.0	5.0
Phosphate resistance		4.0	4.0
Specific gravity		3.51	3.67
Knoop hardness: Hk		420[4]	390[4]
Abrasion: Aa		313	468

※ dn/dT of PCD4 & PCD40 is the relative value of d line.

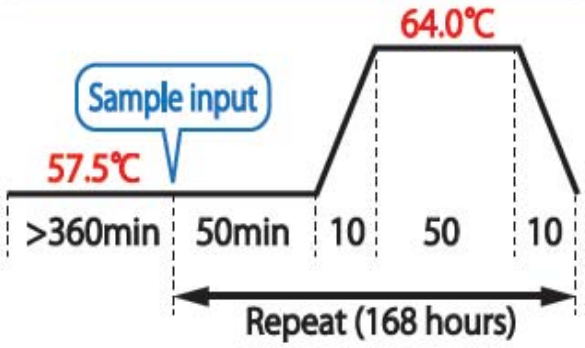
S-PHM52Q “Weather resistance test”

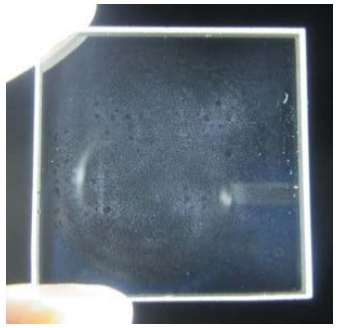
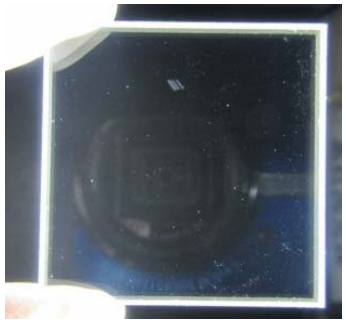
Test method



Temperature profile

In order to accelerate the progress of the burn, it is carried out under harsh conditions.



S-PHM52	S-PHM52Q
	
Strong burn	Weak burn

Provided this test to check the burn on the polished surface

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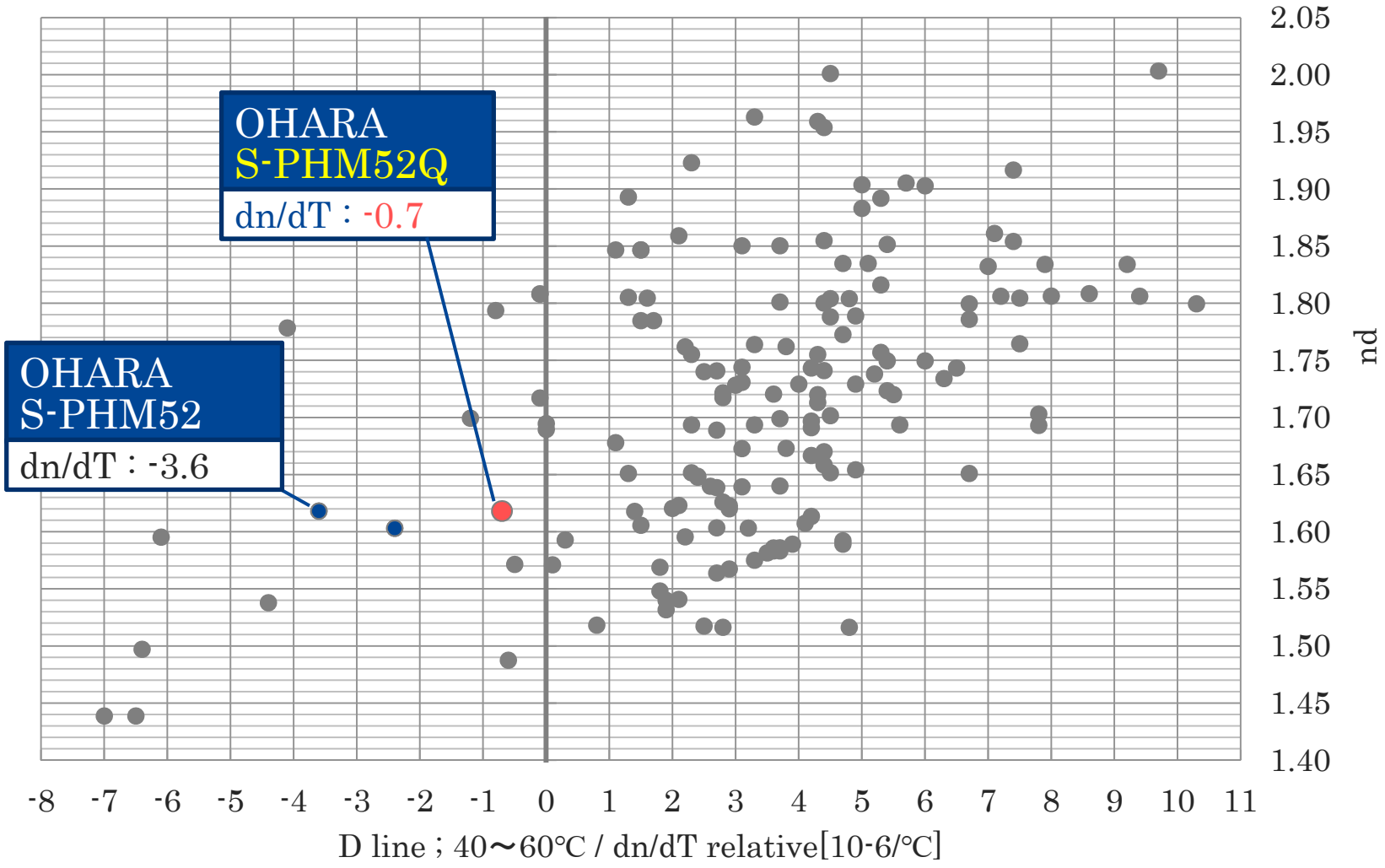
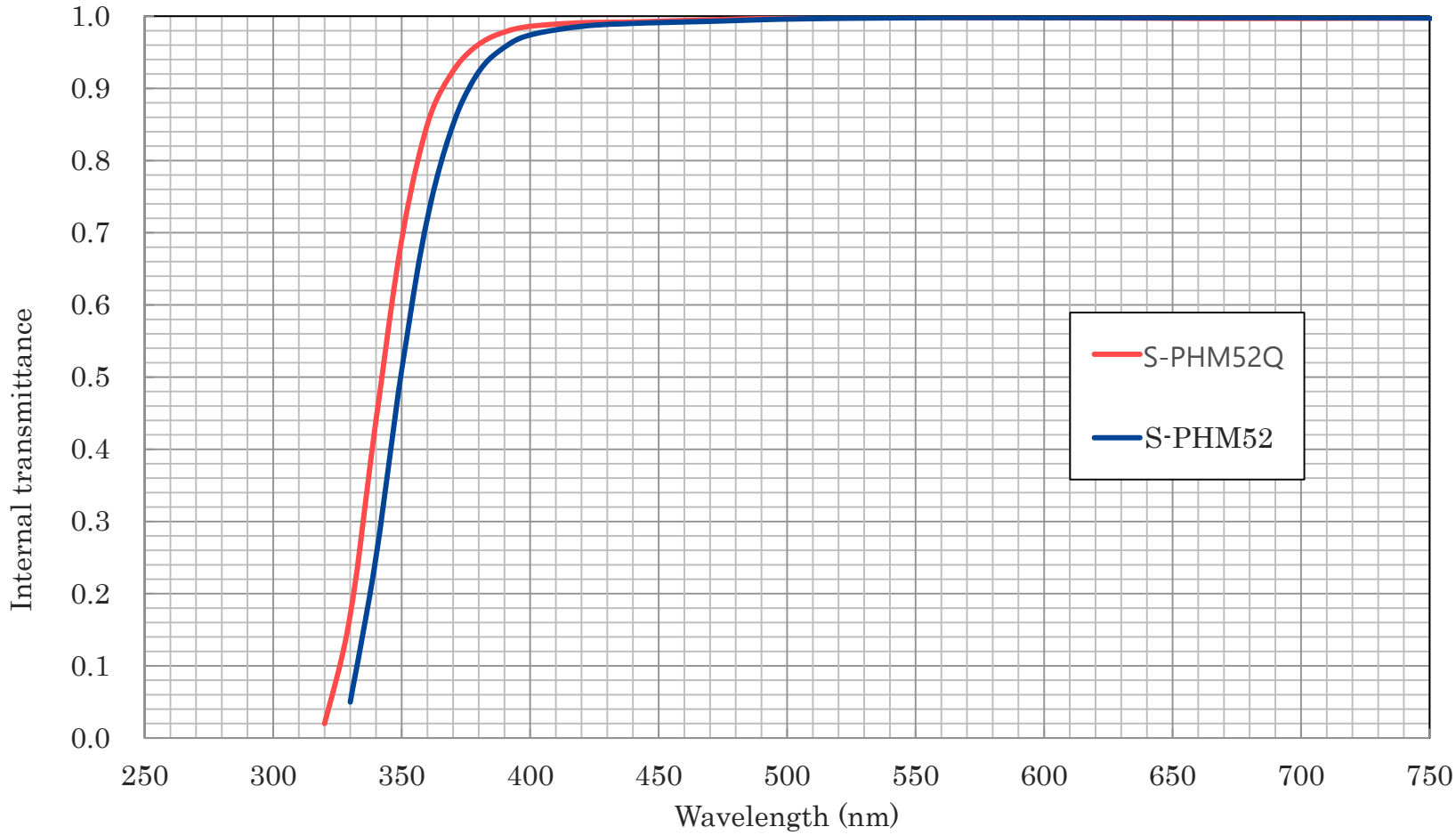
Confirmed weak burn on S-PHM52Q

S-PHM52Q “dn/dT of PHM region”



The dn/dT value of S-PHM52Q is close to 0

S-PHM52Q “Internal transmittance”



Internal transmittance of S-PHM52Q has been improved comparing with S-PHM52