

Attention: Customers

Announcement of New 3TS Nomenclature

We would like to announce that our testing method, ThreeBond Testing Standard (referred to as 3TS) was reviewed and re-numbered as follows.

November 15, 2011
ThreeBond Co., Ltd.
Quality Assurance Division

Background

The testing procedures used at ThreeBond are based on 3TS.

To date, there are three versions of testing method nomenclature, that is, the 1st, 2nd and 3rd generations of 3TS.

Although the 3TS has been updated three times, some older 3TS No. remain because they are still in use for older products.

At this time, we will merge and reissue active 3TS into a new numbering system.

3rd Generation...ThreeBond Testing Standard was issued in April 1995.

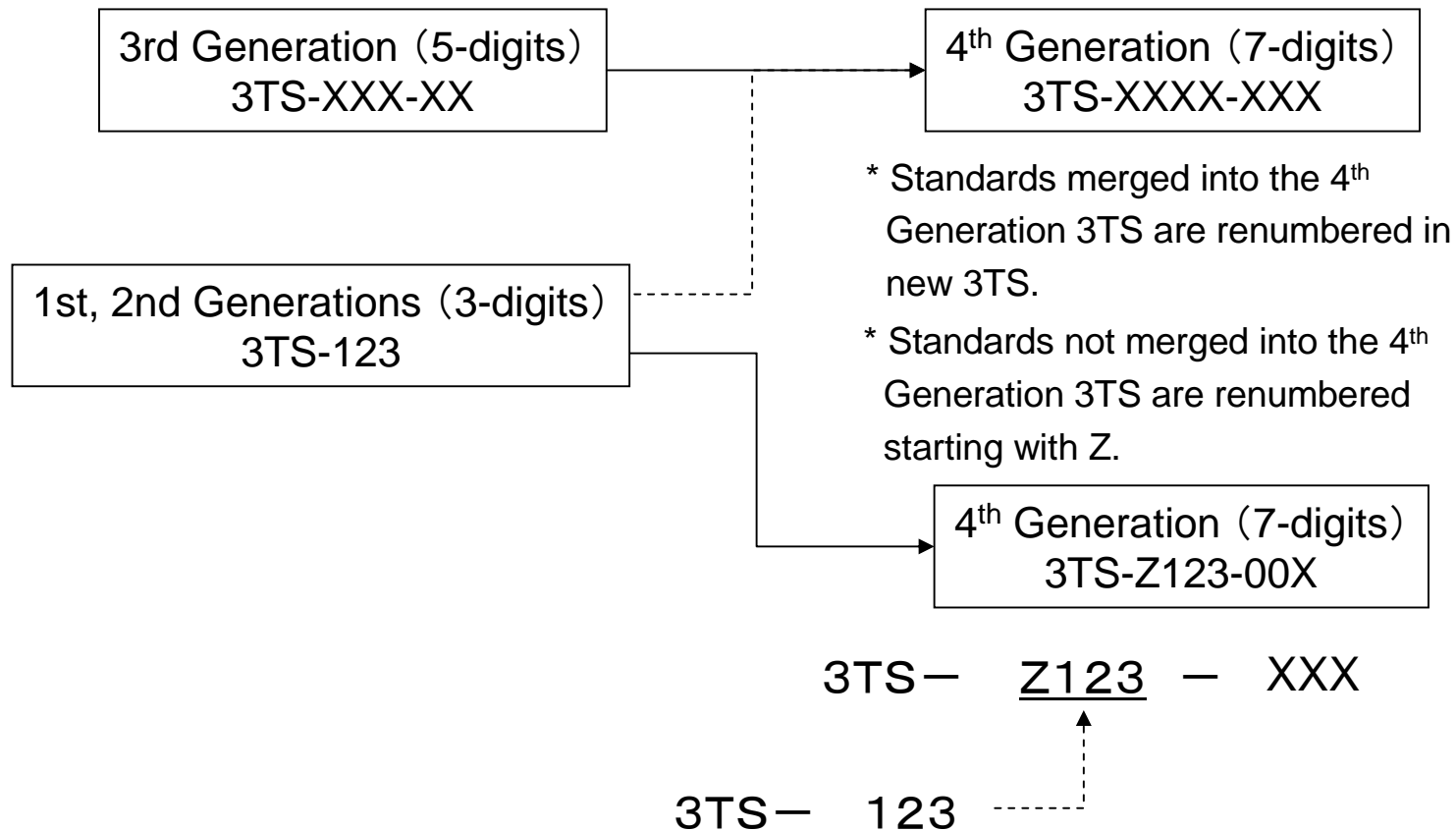
A 5-digit numbering system was introduced to accommodate the increasing number of standards. (3TS-XXX-XX)

2nd Generation...In the same fashion as the original 3TS, each standard is intended for individual products. 3-digits (3TS-XXX)

1st Generation...In April 1975, "The testing standard was issued for the purpose of integrating all the testing methods in ThreeBond." However, each test method standard was mainly by individual product. 3-digits (3TS-XXX)

Overview of the 3TS change

Basically, only the 3TS numbering will change.



Number	Classification	Definition and Item
1000 -	Glossary	Definitions of words and terms used in 3TS
2000 -	General tests and observations	Test methods based on the five-senses to evaluate general state and performance as well as any observational evaluation methods * Appearance, odor, hue, foaming, specific gravity, volume change, flame-retardance, drying time, curability, surface tension, hardness, flash point, abrasion, refractive index, optical properties
3000 -	Applied tests	General utilization tests * Curability
4000 -	Property tests	Tests for property evaluation by thermal or mechanical load * Bonding strength, viscoelasticity, impact test, permanent strain, relaxation, axial force, pressure resistance, thermal analysis
5000 -	Electrical property tests	Tests for property evaluation by electrical load * Conductivity, insulation
6000 -	Analysis	Tests for structural analysis and qualitative/quantitative tests * Chromatography, elemental/structural analysis
7000 -		
8000 -	Automation equipment	Evaluation tests related to automation equipment
9000 -	Other	Other tests that do not fit the above classifications (durability test, etc.) * Durability, salt water spray, chemical/weather-resistance
Z000 -	Potentially discontinued	For 1st to 3rd Generations 3TS that are no longer active (All other tests to be merged into the 4 th Generation 3TS are re-numbered in 1000 to 9000.) Not applicable to post 3 rd Generation new standards.

Product Delivery Specifications

- New Product Delivery Specifications (Product Specifications)
Product Specifications listing the 4th Generation 3TS will be introduced for Product Specifications issued from July 1, 2012 onward.
- For Product Delivery Specifications (Product Specifications) issued on June 30, 2011 and before
A comparison table of new and old numbers will be available on our home page. Also, Product Inspection Report (in Japanese) will be issued including new and old numbers in pair.

We deeply appreciate your understanding for replacing the old numbers with new ones.

A sample of a Production Inspection Report (in Japanese) is shown on the next page.

Product Inspection Report (in Japanese)


4th Generation 3TS will be introduced from **July 1, 2012**.

Product Inspection Report will include both the new 4th Generation 3TS and the corresponding old 3TS.

* We will start issuing the reports including new and old 3TS for products manufactured from July 2012 onward.

* Reports with the 4th Generation 3TS for some products may be issued before July 2012 due to system-related reasons.

見本



****年**月**日発行

株式会社スリーボンド

製品検査書

商品名 : THREEBOND *****

容 量 : *****

LOTNo. : *****

製造開始日 : ****年**月**日

製造検査日 : ****年**月**日

検査責任者 : *****

検査担当者 : *****

品質規格項目	試験方法	単 位	規 格 値	試 験 結 果
*****	3TS-****-*** 3TS-***-**	*****	*****	*****
*****	3TS-****-*** 3TS-***-**	*****	*****	*****
*****	3TS-****-*** 3TS-***-**	*****	*****	*****
*****	3TS-****-*** 3TS-***-**	*****	*****	*****

This is a sample of a Product Inspection Report that includes the new and current 3TS.

Upper...New 3TS (4th Generation)

Lower...Current 3TS (1st Generation to 3rd Generation)

Implementation Schedule

Item		2011	2012				2013	2014
		10-12	1-3	4-6	7-9	10-12	1-12	1-12
3TS Operation	Current 3TS (1 st , 2 nd & 3 rd Generations) in effect				→	✗ End of current 3TS		
	4 th Generation 3TS in effect		○ Nov 2011, new 3TS is issued			→ Start of 4 th Generation 3TS		→
Product Inspection Report (in Japanese)	Current 3TS (1 st , 2 nd & 3 rd Generations) No. listed				→	✗ Current 3TS only		
	New and old 3TS both listed (4 th Generation along with the 1 st , 2 nd & 3 rd Generations)					→ New 3TS along with the corresponding old 3TS		→

3TS Comparison Table

4th Generation 3TS (New 3TS)		3rd Generation 3TS (Current 3TS)	
New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
1000-000	Terms	101-01	Terms
1100-000	Unit	102-01	Unit
1200-000	Adherend material type and surface treatment	103-01	Adherend material type and surface treatment
1300-000	Test panel type and surface treatment	103-02	Test panel type and surface treatment
1400-000	How to round readings	104-01	How to round readings
1500-000	Standard condition in test site	105-01	Standard condition in test site
1600-000	How to organize measurement values	106-01	How to organize measurement values
2100-001	Appearance test (1)	201-01	Appearance test (1)
2100-002	Appearance test (2)	201-02	Appearance test (2)
2100-003	Appearance test (3)	201-03	Appearance test (3)
2100-004	Appearance test (4)	201-04	Appearance test (4)
2100-005	Appearance test (5)	201-05	Appearance test (5)
2100-006	Appearance test (6)	201-06	Appearance test (6)
2100-007	Appearance test (7)	201-92	Appearance test (7)
2100-009	Core substance condition	201-93	Core substance condition
2110-002	Rust occurrence ratio measurement	232-01	Rust occurrence ratio measurement
2110-003	Water displacement test	232-02	Water displacement test
2140-001	Adhesion test (cross hatch method)	270-01	Adhesion test (cross hatch method)
2140-002	Adhesion test (X cut tape method)	270-02	Adhesion test (X cut tape method)
2150-001	Bend-resistant test	270-11	Bend-resistant test
2150-002	Topcoat compatibility test	270-12	Topcoat compatibility test
2150-003	Mandrel bend test	270-13	Mandrel bend test
2150-004	Adhesion test	270-14	Adhesion test
2150-005	Folding test	270-15	Folding test
2200-001	Odor test	202-01	Odor test
2300-001	Hue test	203-01	Hue test
2310-001	Heating discoloration test	201-91	Heating discoloration test
2400-001	Foaming property and foam stability	224-01	Foaming property and foam stability
2400-002	Foaming property (grease)	224-02	Foaming property (grease)
2400-003	Emulsifying capacity test	290-01	Emulsifying capacity test
2410-001	Test of defoaming in printing (mesh method)	224-03	Test of defoaming in printing (mesh method)
2500-001	Specific gravity measurement (floating gravimeter method)	213-01	Specific gravity measurement (floating gravimeter method)
2500-002	Specific gravity measurement (specific gravity cup method)	213-02	Specific gravity measurement (specific gravity cup method)
2500-003	Specific gravity (underwater displacement method)	213-03	Specific gravity (underwater displacement method)
2500-004	Bulk specific gravity measurement (messzylinder method)	213-04	Bulk specific gravity measurement (messzylinder method)
2500-005	Bulk specific gravity measurement	213-05	Bulk specific gravity measurement
2500-006	Bulk measurement	213-06	Bulk measurement
2500-007	Apparent density measurement	213-07	Apparent density measurement
2510-001	Loss on heat test	216-01	Loss on heat test
2510-002	Heating residue test	217-01	Heating residue test
2510-003	Heating residue test	217-93	Heating residue test -specifying test equipment- (3)
2520-001	Mass change ratio measurement	229-01	Mass change ratio measurement
2520-002	Mass change ratio measurement (JIS K 6820)	229-02	Mass change ratio measurement (JIS K 6820)
2530-001	Water absorption rate measurement (1)	233-01	Water absorption rate measurement (1)
2530-002	Water absorption rate measurement (2) (rate after 30-minute boiling)	233-02	Water absorption rate measurement (2)
2530-003	Water absorption rate measurement (3) (rate after 2-hour boiling)	233-03	Water absorption rate measurement (3)
2530-004	Water absorption rate measurement (4)	233-04	Water absorption rate measurement (4)
2540-001	Injection quantity test	280-02	Injection quantity test
2540-002	Injection residual quantity test	280-04	Injection residual quantity test
2600-001	Cure shrinkage ratio measurement (underwater displacement method)	228-01	Cure shrinkage ratio measurement (underwater displacement method)
2600-003	Volume change ratio measurement (underwater displacement method)	228-03	Volume change ratio measurement (underwater displacement method)
2600-004	Cure volume shrinkage ratio measurement (volatile material, underwater displacement method)	228-04	Cure volume shrinkage ratio measurement (volatile material, underwater displacement method)
2700-001	Horizontal flammability test	218-01	Horizontal flammability test
2700-002	Vertical flammability test	218-02	Vertical flammability test
2700-003	Flame-resistant test	218-03	Flame-resistant test
2710-001	Flammability (flame value) test	280-05	Flammability (flame value) test
2710-002	Flammability (EC value) test	280-06	Flammability (EC value) test
2800-001	Continuous full-quantity injection period	280-03	Continuous full-quantity injection period
2900-001	Masking ability test (comparing with sample)	227-01	Masking ability test (comparing with sample)
2900-002	Masking ratio test	227-02	Masking ratio test
2910-001	UV cumulative quantity measurement	533-01	UV cumulative quantity measurement
2910-002	UV illuminance measurement	533-02	UV illuminance measurement
2920-001	Refractive index measurement	536-01	Refractive index measurement

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
2930-001	Specular gloss measurement	537-01	Specular gloss measurement
2940-001	Transmittance measurement for total amount of light	538-01	Transmittance measurement for total amount of light
2940-002	Haze (turbidity) measurement	538-02	Haze (turbidity) measurement
2A00-001	Surface tension measurement	225-01	Surface tension measurement
2A00-002	Contact angle measurement	225-02	Contact angle measurement
2A10-001	Permeability test	225-11	Permeability test
2A20-001	Diffusivity test	225-12	Diffusivity test
2B00-001	Consistency measurement	214-01	Consistency measurement
2B00-002	Penetration measurement	214-02	Penetration measurement
2B00-003	Penetration measurement (1/4 cone method)	214-03	Penetration measurement (1/4 cone method)
2B00-004	Durometer hardness test (1)	215-01	Durometer hardness test (1)
2B00-005	Durometer hardness test (2)	215-02	Durometer hardness test (2)
2B00-006	IRHD hardness test (micro hardness)	215-03	IRHD hardness test (micro hardness)
2B00-007	Vickers hardness test	215-04	Vickers hardness test
2B00-008	Pencil hardness test	215-05	Pencil hardness test
2C00-001	Melting point measurement (1)	230-01	Melting point measurement (1)
2C00-002	Melting point measurement (2)	230-02	Melting point measurement (2)
2C00-003	Melting point measurement (3)	230-03	Melting point measurement (3)
2C00-005	Tag closed cup flash point	231-01	Tag closed cup flash point
2C00-006	Cleveland open cup flash point measurement	231-02	Cleveland open cup flash point measurement
2C00-007	Setaflash closed cup flash point measurement	231-03	Setaflash closed cup flash point measurement
2D00-001	Abrasion test	352-02	Abrasion test
2D00-002	Pendulum friction test	352-04	Pendulum friction test
2D00-003	Slope ball tack test	221-01	Slope ball tack test
2F00-001	Viscosity measurement (BL type)	210-01	Viscosity measurement (BL type)
2F00-002	Viscosity measurement (BH type)	210-02	Viscosity measurement (BH type)
2F00-003	Viscosity measurement (BS type)	210-03	Viscosity measurement (BS type)
2F00-004	Viscosity measurement (EMD type)	210-04	Viscosity measurement (EMD type)
2F00-005	Viscosity measurement (EHD type)	210-05	Viscosity measurement (EHD type)
2F00-006	Fusing viscosity measurement (rotary)	210-06	Fusing viscosity measurement (rotary)
2F00-007	Viscosity measurement (Cone-plate rotary viscometer)	210-10	Viscosity measurement (Cone-plate rotary viscometer)
2F10-00□ (001 to 003)	TI value (Structural viscosity ratio measurement (thixotropic index))-1	211-0□ (01 to 03)	Structural viscosity ratio measurement (thixotropic index)
2F10-00□ (004 to 007)	TI value (Structural viscosity ratio measurement (thixotropic index))-2	211-1□ (11 to 13,19)	Structural viscosity ratio measurement (thixotropic index)
2F20-001	Viscosity measurement (cup method)	210-07	Viscosity measurement (cup method)
2F30-001	Apparent viscosity measurement (SOD viscosity)	210-08	Apparent viscosity measurement (SOD viscosity)
2F40-001	Extrusion capacity measurement	210-09	Extrusion capacity measurement
2G00-001	Sieve-analysis test	226-01	Sieve-analysis test
2G00-002	Particle diameter measurement	226-02	Particle diameter measurement
2G00-003	Particle diameter measurement-2	226-03	Particle diameter measurement-2
2H00-002	Water vapor permeability measurement (moisture sensor method)	515-01	Water vapor permeability measurement (moisture sensor method)
2J00-001	Clearance measurement	535-01	Clearance measurement
2J10-001	Film & sheet thickness measurement method	261-01	Film & sheet thickness measurement method
2J30-001	Pre-coated bolt dimension	240-01	Pre-coated bolt dimension
2J30-002	Pre-coated bolt film thickness measurement	240-02	Pre-coated bolt film thickness measurement
3100-001	Slump test	212-01	Slump test
3110-001	Drooping test	212-11	Drooping test
3120-001	Thermoset resin liquidity test in setting (flowability test)	212-21	Thermoset resin liquidity test in a time of setting (flow property test)
3120-002	Thermoset resin liquidity test in setting (flowability test) -post-heating method-	212-22	Thermoset resin liquidity test in setting (flowability test) -post-heating method-
3120-003	Resin liquidity test	212-23	Resin liquidity test
3130-001	Tacky drying time test (1)	219-01	Tacky drying time test (1)
3130-002	Tacky drying time test (2)	219-02	Tacky drying time test (2)
3130-003	Tacky drying time test (3)	219-05	Tacky drying time test (3)
3130-004	Drying time test	219-03	Drying time test
3130-005	Tack-free time	219-04	Tack-free time
3130-006	Tack-free test (2)	219-06	Tack-free test (3)
3130-007	Adhesive transfer test	221-02	Adhesive transfer test
3130-008	Adhesive transfer test (2)	221-03	Adhesive transfer test (2)
3140-001	Set time measurement (with rubber)	220-01	Set time measurement (with rubber)
3140-002	Set time measurement (with bolt & nut)	220-02	Set time measurement (with bolt & nut)
3140-003	Set time measurement (with bolt & nut) -simplified version-	220-03	Set time measurement (with bolt & nut) -simplified version-
3140-004	Set time measurement (with steel)	220-04	Set time measurement (with steel)
3140-005	Set time measurement (with pin & collar) -simplified version-	220-05	Set time measurement (with pin & collar) -simplified version-
3140-006	Set time measurement (with pin & collar) -simplified version-	220-06	Set time measurement (with pin & collar) -simplified version-
3140-007	Set time measurement	220-07	Set time measurement
3140-008	Set time (instantaneous adhesives)	220-10	Set time (instantaneous adhesives)
3150-001	Cure speed measurement (with thermocouple)		Cure speed measurement (with thermocouple)

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
3150-002	Service life measurement (with thermocouple)	220-09	Service life measurement (with thermocouple)
3150-004	Gel time measurement (visual check)	223-01	Gel time measurement (visual check)
3160-001	Thick-film curing test method	222-01	Thick-film curing test method
3160-002	Thick-film curing test method (1)	222-91	Thick-film curing test method (1)
3160-003	Thick-film curing test method (2)	222-92	Thick-film curing test method (2)
3160-004	Thick-film curing test method (3)	222-93	Thick-film curing test method (3)
3160-005	Thick-film curing test method (4)	222-94	Thick-film curing test method (4)
3180-001	Foam material reactivity test (cream)	260-01	Foam material reactivity test (cream)
3180-002	Foaming material reactivity test curing time (rise time)	260-02	Foaming material reactivity test curing time (rise time)
3180-003	Foam material foaming condition test (foaming magnification; container)	260-03	Foam material foaming condition test (foaming magnification; container)
3180-004	Foam material foaming condition test (foaming magnification; sheet method I)	260-04	Foam material foaming condition test (foaming magnification; sheet method I)
3180-005	Foam material foaming condition test (foaming magnification; sheet method II)	260-05	Foam material foaming condition test (foaming magnification; sheet method II)
3180-006	Foam material foaming condition test (number of cells; container method)	260-06	Foam material foaming condition test (number of cells; container method)
3180-007	Foam material foaming condition test (number of cells; sheet method I)	260-07	Foam material foaming condition test (number of cells; sheet method I)
3180-008	Foam material foaming condition test (number of cells; sheet method II)	260-08	Foam material foaming condition test (number of cells; sheet method II)
31A0-004	Petroleum pitch washability test	280-07	Petroleum pitch washability test
31A0-005	Spray pattern test	280-08	Spray pattern test
4100-01□ (1 to 3.9)	Tensile shear adhesion strength test (contact adhesion)	301-1□ (1 to 3.9)	Tensile shear adhesion strength test (contact adhesion)
4100-02□ (1 to 3.9)	Tensile shear adhesion strength test (clearance adhesion)	301-2□ (1 to 3.9)	Tensile shear adhesion strength test (clearance adhesion)
4101-001	Interlayer shear strength test	322-02	Interlayer shear strength test
4110-□□□ (001,002,099)	Compression shear adhesion strength test	302-□□ (01,02,99)	Compression shear adhesion strength test
4111-001	Compressive strength test (1)	321-01	Compressive strength test (1)
4111-002	Compressive strength test (2)	321-02	Compressive strength test (2)
4111-003	Particle compressive strength	321-91	Particle compressive strength
4111-004	Bursting strength test	325-01	Bursting strength test
4120-001	Tensile strength test	303-91	Tensile strength test
4130-01□ (1 to 4.9)	180°peel strength test	304-1□ (1 to 4.9)	180°peel strength test
4130-02□ (1 to 4.9)	T-type peel strength test	304-2□ (1 to 4.9)	T-type peel strength test
4130-03□ (1 to 4.9)	90°peel strength test	304-3□ (1 to 4.9)	90°peel strength test
4130-04□ (1 to 2.9)	90°peel strength test (2)	304-4□ (1 to 2.9)	90°peel strength test (2)
4130-050	90° tensile peel strength test	304-91	90° tensile peel strength test
4140-001	Fitting adhesion strength test	305-01	Fitting adhesion strength test
4150-001	Fixing strength test (1)	306-01	Fixing strength test (1)
4150-002	Fixing strength test (2)	306-02	Fixing strength test (2)
4150-003	Fixing strength test (3)	306-03	Fixing strength test (3)
4150-004	Fixing strength test (4)	306-04	Fixing strength test (4)
4150-005	Fixing strength test (5)	306-05	Fixing strength test (5)
4160-001	Cleavage strength test	307-01	Cleavage strength test
4161-□□□ (01 to 03, 99)	Tear strength test	323-□□ (01 to 03, 99)	Tear strength test
4170-001	Bend adhesion strength test	309-01	Bend adhesion strength test
4171-001	Bend strength test	322-01	Bend strength test
4180-001	Chip adhesion strength test	310-01	Chip adhesion strength test
4180-002	Chip adhesion strength test (2)	310-02	Chip adhesion strength test (2)
4190-0□□ (01 to 05,09)	Tensile strength & elongation ratio test	320-□□ (01 to 05,09)	Tensile strength & elongation ratio test
4200-001	Liquidity curve	208-01	Liquidity curve
4200-002	Yield value measurement	208-02	Yield value measurement
4200-003	Temperature-viscosity curve rheometer method (constant flow viscosity measurement)	208-03	Temperature-viscosity curve rheometer method (constant flow viscosity measurement)
4200-004	Dynamic viscoelastic measurement (rheometer) -Stress-dependent measurement	209-01	Dynamic viscoelastic measurement (rheometer) -Stress-dependent measurement
4200-005	Dynamic viscoelastic measurement (rheometer) -Speed-dependent measurement	209-02	Dynamic viscoelastic measurement (rheometer) -Speed-dependent measurement
4200-006	Dynamic viscoelastic measurement (rheometer) -Time-dependent measurement	209-03	Dynamic viscoelastic measurement (rheometer) -Time-dependent measurement
4200-007	Dynamic viscoelastic measurement (rheometer) -Temperature-dependent measurement	209-04	Dynamic viscoelastic measurement (rheometer) -Temperature-dependent measurement
4300-001	Dupon impact test	270-16	Dupon impact test
4310-001	Impact adhesion strength test	308-01	Impact adhesion strength test
4310-002	Impact adhesion strength test (2)	308-02	Impact adhesion strength test (2)
4320-001	Chalpy impact test	324-01	Chalpy impact test
4320-002	Izot impact test	324-02	Izot impact test

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
4400-001	Young's modulus (static longitudinal elasticity) measurement	330-01	Young's modulus (static longitudinal elasticity) measurement
4410-001	Compressive permanent strain test (1)	332-01	Compressive permanent strain test (1)
4410-002	Compressive permanent strain test (2)	332-02	Compressive permanent strain test (2)
4420-001	Tensile permanent stain test	333-01	Tensile permanent stain test
4430-001	Tensile stress relaxation test	334-01	Tensile stress relaxation test
4430-002	Creep test (1)	334-02	Creep test (1)
4430-003	Creep test-softening temperature-(2)	334-03	Creep test-softening temperature-(2)
4430-004	Creep test (3)	334-04	Creep test (3)
4430-005	Compression ratio & decompression ratio measurement	334-91	Compression ratio & decompression ratio measurement
4500-001	Axial force measurement (manual type)	345-01	Axial force measurement (manual type)
4600-001	Pressure-resistant test method	350-01	Pressure-resistant test method
4600-002	Pressure-resistant test	350-02	Pressure-resistant test
4600-003	Initial pressure-resistant test	350-03	Initial pressure-resistant test
4610-001	Water pressure resistant test -pipes-(1)	350-91	Water pressure resistant test -pipes-(1)
4610-002	Water pressure resistant test -pipes-(2)	350-92	Water pressure resistant test -pipes-(2)
4610-003	Pressure-resistant test -pipes-	350-93	Pressure-resistant test -pipes-
4620-001	Surface pressure measurement (with pressure measuring film)	534-01	Surface pressure measurement (with pressure measuring film)
4620-002	Product pressure test	280-01	Product pressure test
4700-001	Transition temperature measurement method-differential thermal analysis	501-01	Transition temperature measurement method-differential thermal analysis
4710-002	Transition thermal measurement method-differential scanning	501-02	Transition thermal measurement method-differential scanning
4720-001	Heating residue test (TG method)	217-02	Heating residue test (TG method)
4720-002	Thermogravimetric measurement method (TG)	501-03	Thermogravimetric measurement method (TG)
4720-003	Loss on heat test (TG method)	216-02	Loss on heat test (TG method)
4730-001	Dynamic viscoelastic measurement (DMA)	501-04	Dynamic thermomechanical analysis (DMA)
4740-001	Linear expansion coefficient, glass-transition temperature measurement	501-05	Linear expansion coefficient, glass-transition temperature measurement
4750-001	Thermal conductivity measurement (thin-film material)	501-06	Thermal conductivity measurement (thin-film material)
4750-002	Thermal conductivity measurement (2)	501-07	Thermal conductivity measurement (2)
5100-001	Volume resistivity (conductivity) measurement	401-02	Volume resistivity (conductivity) measurement
5100-002	Volume resistivity (conductivity) measurement (2)	401-03	Volume resistivity (conductivity) measurement (2)
5110-001	Spot resistance measurement	404-01	Spot resistance measurement
5110-002	Contact resistance	410-01	Contact resistance
5110-003	Contact resistance measurement	404-02	Contact resistance measurement
5200-001	Volume resistivity measurement	401-01	Volume resistivity measurement
5200-002	Surface resistivity measurement	402-01	Surface resistivity measurement
5210-001	Insulation resistance measurement (comb electrode)	403-01	Insulation resistance measurement (comb electrode)
5210-002	Migration test	409-01	Migration test
5220-001	Dielectric constant & dielectric tangent measurement	405-01	Dielectric constant & dielectric tangent measurement
5230-001	Dielectric breakdown strength test	406-01	Dielectric breakdown strength test
5230-002	Dielectric breakdown strength test (gap substrate method)	406-02	Dielectric breakdown strength test (gap substrate method)
5240-001	Arc-resistant test	407-01	Arc-resistant test
5250-001	Tracking-resistant test	408-01	Tracking-resistant test
6100-001	Ion concentration measurement (Ion chromatography analysis)	511-01	Ion concentration measurement (Ion chromatography analysis)
6100-002	Ion concentration measurement (Ion chromatography analysis) (2)	511-02	Ion concentration measurement (Ion chromatography analysis) (2)
6100-003	Total halogen volume analysis (burning-ion chromatography analysis)	511-03	Total halogen volume analysis (burning-ion chromatography analysis)
6200-001	Contained element quantification analysis (ICP-MS method)	513-01	Contained element quantification analysis (ICP-MS method)
6210-001	Contained element quantification analysis (atomic absorption analysis)	514-01	Contained element quantification analysis (atomic absorption analysis)
6220-001	Environmentally hazardous substances screening test (fluorescent X-ray analysis)	539-01	Environmentally hazardous substances screening test (fluorescent X-ray analysis)
6400-001	Trace moisture measurement (Karl Fischer titration method)	512-01	Trace moisture measurement (Karl Fischer method)
6400-002	pH measurement (1)	531-01	pH measurement (1)
6400-003	pH measurement (2)	531-02	pH measurement (2)
6410-001	Free radical measurement	532-01	Free radical measurement
9200-001	Chemical-resistant testing method	620-01	Chemical-resistant testing method
9210-001	Micro capsule toluene-resistant test	620-02	Micro capsule toluene-resistant test
9220-001	Plastic resistance compatibility test	232-21	Plastic resistance compatibility test
9300-001	Salt water spray test method	605-01	Salt water spray test method
9300-002	Salt water dry & wet combination cycle test method	605-02	Salt water dry & wet combination cycle test method
9400-001	High temperature test method	601-01	High temperature test method
9400-002	Heat resistance in uncured state	601-02	Heat resistance in uncured state
9400-003	Low temperature test method	602-01	Low temperature test method

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
9400-004	Constant temperature & humidity test method	603-01	Constant temperature & humidity test method
9400-005	Accelerated weathering test method	604-01	Accelerated weathering test method
9400-006	Thermal cycle test method	606-01	Thermal cycle test method
9400-007	Thermal shock test method	607-01	Thermal shock test method
9500-005	Corrosion test (3)	232-91	Corrosion test (3)
9510-001	Corrosion test (1) -Open type-	232-11	Corrosion test (1) -Open type-
9510-002	Corrosion test (2) -Closed type-	232-12	Corrosion test (2) -Closed type-
Z100-001	General condition		
Z103-002	Appearance		
Z105-002	Appearance		
Z107-001	How to adjust test sample		
Z202-001	Standard for selecting type B viscometer, rotor & rotation speed (BL		
Z204-002	Consistency		
Z205-001	Consistency (and penetration)		
Z208-001	Structural viscosity ratio-1(2:20) (thixotropic index)		
Z209-001	Structural viscosity ratio-1(6:60) (thixotropic index)		
Z213-008	Specific gravity measurement method (Beckmen method)	213-08	Specific gravity measurement method (Beckmen method)
Z214-002	Bulk specific gravity		
Z215-002	Specific gravity		
Z216-001	Structural viscosity ratio-3(4:20) (thixotropic index)		
Z217-001	Viscosity (type E)		
Z217-091	Heating residue test-specifying test equipment -(1)	217-91	Heating residue test-specifying test equipment -(1)
Z217-092	Heating residue test-specifying test equipment -(2)	217-92	Heating residue test-specifying test equipment -(2)
Z221-001	Heating residue		
Z222-002	Heating residue		
Z223-001	Heating residue		
Z224-001	Heating residue		
Z225-001	Heating residue		
Z230-001	Drying time		
Z231-002	Folding		
Z232-001	Drying time		
Z233-001	Curing speed		
Z241-002	Gel time		
Z242-001	Gel time (with thermocouple)		
Z249-002	Ion concentration measurement		
Z251-002	Surface tension		
Z253-001	Surface tension		
Z260-001	Sieve-analysis test		
Z261-001	Particle size		
Z271-002	Mold test		
Z277-001	Masking ratio (reflectivity)		
Z290-001	Volume change ratio		
Z301-001	Shear adhesion		
Z305-002	Shear adhesion strength		
Z306-001	Compression shear strength (anaerobic curing)		
Z307-002	Compression shear strength (anaerobic curing)12φ		
Z308-002	Tensile strength		
Z309-001	Shear adhesion (Sealing agent)		
Z310-001	Shear adhesion (UV)		
Z311-001	Tensile strength & elongation ratio		
Z314-001	Thick-film curability & adhesion strength		
Z316-001	Tensile strength & elongation ratio		
Z317-001	Compression shear adhesion strength (hot melt)		
Z319-002	Shear adhesion strength		
Z320-001	Pressure resistance		
Z321-001	Water pressure resistance		
Z322-002	Pressure resistance		
Z323-002	Water pressure resistance		
Z324-002	Hot water pressure resistance		
Z325-001	Hot water pressure resistance		
Z326-002	Pressure resistance		
Z327-001	Pressure resistance		
Z328-001	Water pressure resistance		
Z329-002	Pressure resistance		
Z330-002	Tensile strength		
Z331-001	Shear adhesion (anti-curved material)		
Z332-002	Peel strength		
Z333-001	Undercoat compatibility & adhesion test		
Z334-001	180°peel strength		
Z335-001	T-shape peel strength		
Z336-001	Sealing property test (leakage volume measurement)		
Z337-001	Initial adhesion (PC sealing tape)		

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
Z338-001	Air leakage test		
Z339-001	90°peel strength		
Z340-001	Breakdown torque		
Z341-001	Residual torque		
Z342-001	Breakdown torque in heating		
Z343-001	Residual torque in heating		
Z344-001	Peel strength (silicone)		
Z345-001	Axial force		
Z346-001	Tacking (blocking test)		
Z347-001	Tentative adhesion strength (laminated strength) Curing adhesion strength (180°peel)		
Z348-001	Adhesive transfer evaluation		
Z350-002	Screw pressure resistance		
Z351-001	Young's modulus		
Z352-001	Leakage quantity measurement		
Z355-001	Thermal conductivity measurement (thin-film material)		
Z362-001	Anaerobic curability (set time)		
Z363-001	Thick-film curability		
Z364-001	Curing test		
Z365-001	Curing shrinkage ratio		
Z366-001	UV curability and thick-film curability		
Z367-001	Photo-curable resin (combined type with thermoset) thermosetting test		
Z367-002	Photo-curable resin (combined type with thermoset) thermosetting test		
Z368-001	Anaerobic curability (set time)-2		
Z370-001	Impact resistance		
Z373-001	Grease load bearing performance test		
Z374-001	Four-ball friction test (standard method)		
Z375-001	Friction test (ring on ring method)		
Z377-002	Screw pressure resistance		
Z381-001	Floating test		
Z382-001	Adhesion		
Z383-001	Softening temperature		
Z384-002	Hardness		
Z386-002	Adhesion		
Z387-001	Hardness (JIS-D)		
Z388-001	Hardness (JIS-A)		
Z389-001	Pencil hardness		
Z390-001	Cross hatch sticky tape peeling		
Z391-001	Hardness (ASKER-F) foam hardness		
Z392-001	Dynamic viscoelastic measurement method (DMS measurement)		
Z393-001	Liquidity		
Z394-001	Hardness (IRHD)		
Z395-002	Compressive deformation ratio		
Z396-001	Linea expansion coefficient, glass-transition point (TMA method)		
Z397-001	Thermogravimetric and differential thermal analysis (TG/DTA)		
Z398-001	Differential scanning calorimetry (DSC)		
Z399-002	Differential thermal analysis (DTA) RT to 500°		
Z401-001	Surface dielectric resistance (comb electrode)		
Z402-001	volume specific resistance value (conductive resin material)		
Z405-001	Insulation material volume and surface resistance ratio		
Z420-001	UV transmittance (wavelength range 300 to 400 nm)		
Z501-001	Storing stability (torque change)		
Z502-001	Storing stability 2 (viscosity change)		
Z503-002	Storing stability		
Z504-001	Storing stability 3 (consistency change)		
Z505-001	Stability test		
Z510-002	Thermal deterioration		
Z511-001	Paint film heat resistance		
Z512-001	Heat resistance		
Z513-001	Steam washing resistance		
Z514-002	Soldering heat resistance		
Z515-001	Thermal aging (Foam hardness)		
Z520-001	High & low temperature resistance (pressure resistance)		
Z521-001	Thermal shock test (C-shape washer)		
Z522-001	Flammability test (equivalent to UL94-		
Z523-001	Flammability test (equivalent to UL94 V-0, V-1, V-2)		
Z530-001	Cold resistance		
Z531-001	Cold resistance (foam)		

New 3TS No.	New 3TS item	Current 3TS No.	Current 3TS item
Z540-001	Weather resistance (exposure test using weather meter)		
Z591-002	Nonflammability		
Z601-001	Water resistance (Torque retention)		
Z602-002	Water resistance		
Z603-001	Water resistance		
Z604-001	Water resistance		
Z605-001	Water resistance		
Z606-002	Water resistance		
Z607-001	Water absorption rate		
Z608-001	Water absorption rate (foam)		
Z620-001	Oil resistance		
Z621-002	Oil resistance		
Z622-001	Oil resistance		
Z623-001	Oil resistance		
Z624-001	Oil resistance (foam hardness variation)		
Z630-001	Gasoline resistance		
Z631-002	Benzene resistance (gas-phase)		
Z632-002	Benzene resistance (liquid-phase)		
Z633-002	n-hexane resistance (liquid-phase)		
Z634-001	Gasoline resistance		
Z635-001	Gasoline resistance		
Z640-002	LPG resistance (liquid-phase)		
Z641-001	Chemicals resistance (liquid-phase)		
Z642-001	Chemicals resistance (gas-phase)		
Z643-002	Benzene resistance (liquid-phase)		
Z644-002	Benzene resistance (gas-phase)		
Z645-002	n-hexane resistance (liquid-phase)		
Z646-002	n-hexane resistance (gas-phase)		
Z647-001	City gas resistance		
Z648-001	Benzene resistance (liquid-phase)		
Z649-002	Benzene resistance (gas-phase)		
Z650-001	Liquid-resistant test		
Z651-001	Salt water immersion test		
Z652-001	Rust-proof test		
Z653-001	Salt water resistance		
Z654-001	Salt water resistance		
Z655-001	Antifreeze liquid resistance		
Z656-001	Salt water spray test (rust-proof)		
Z660-001	Corrosion		
Z661-001	Copper corrosion test (silicone product)		
Z670-001	Anti-plastic property		
Z801-001	Normal sample condition (pretreatment)		
Z803-001	Thickness (sheet packing)		
Z804-001	Width (length)		
Z805-001	Unit mass and apparent viscosity		
Z806-001	Compression ratio & decompression		
Z807-001	Mass change ratio and extraction ratio (chemicals resistance)		
Z808-001	Thickness change ratio (chemical-resistance)		
Z809-001	Tensile strength		
Z810-001	Tearing strength		
Z811-001	Bursting strength		
Z812-001	Relaxation ratio		
Z813-001	Pressure resistance		
Z901-002	Petroleum pitch washability test		
Z902-002	Weight measurement		
Z903-001	Thickness measurement		
Z904-001	Width measurement		
Z905-001	Impregnation ratio		
Z906-001	Ion concentration measurement method		